# The Veterinary Record.

*(Founded by William Hunting, F.R.C.V.S., 1888.)*

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## Provisions for a Pure Milk Supply.*

By J. Hume Patterson, F.R.F.P.S. (Glas.), D.P.H., County and District Medical Officer, Lanarkshire.

Milk is one of the most important foodstuffs with which we have to deal, as it not only is the principal food of the young subject, but also of the invalid, and much has been done, mostly during recent years, in the way of legislation to ensure its purity, and to-day I purpose giving you a short historical sketch of the Acts, Orders, and Regulations and their results.

The first general Act in this country was the Act of 1860, although individual articles such as tea, coffee, chicory, beer, and wine were legislated for by special Statutes, the object of which was for the most part to prevent the defrauding of the revenue; the health of the purchaser and the injury done to him being a secondary consideration. It is interesting to note that in 1850 the publishers of *The Lancet* established in connection with their journal, "The Lancet Sanitary Commission" of which Commission Dr. Arthur Hill Hassall was the leading spirit. "The Analytical Sanitary Commission" was commenced in the first number of *The Lancet* for 1851, and the scope of the enquiry, as stated by the Editor, was as follows:—"We propose, for the public benefit, to institute an extensive and somewhat rigorous course of investigation into the present condition of the various articles of diet supplied to the inhabitants of this great metropolis and its vicinity." At the same time, notice was given that samples would be taken in London, and the analyses of all samples, genuine and adulterated, would be published in *The Lancet*, with the names and addresses of the merchants from whom the purchases were made. A cautionary period of three months' grace was given at the commencement of this scheme, when only the name of the street was published, but at the expiration of three months the names and addresses of the shopkeepers from whom purchases had been made were given, and, hazardous although the experiment most certainly was, yet the names of large firms were freely published and pilloried for having sold impure and false goods. The result of this campaign was that in 1855 a select parliamentary committee was appointed to go into the question of adulteration of food, and this led to the "Adulteration Act of 1860," already referred to, being made law. The first section of this Act enacted that "every person who shall sell any article of food or drink with which, to the knowledge of such person, any ingredient or material injurious to the health of persons eating or drinking such article, has been mixed, and every person who shall sell as pure or unadulterated, any article of food or drink which is adulterated or not pure, shall, for every such offence, on summary conviction of the same, pay a penalty not exceeding £5, with costs." A second offence was punishable in addition by publishing the offender's name, place of abode, and offence. In the year 1872 another Act was passed, but as the Act of 1860 remained unrepealed the two Acts were in force simultaneously and under their joint operation the following offences were punishable:—

1. Selling any article of food, drink, or medicine, that contains any ingredient injurious to health, and knowing it to contain such ingredient.
2. Selling any adulterated food, drink, or drug.
3. Wilfully mixing with any article of food or drink any ingredient or poisonous ingredient to adulterate the same for sale.
4. Wilfully mixing any ingredient with any drug to adulterate the same for sale.
5. Selling any article of food, drink, or any drug, knowing the same to have been mixed with other substances with intent fraudulently to increase its weight or bulk, unless such admixture be declared at the time of sale.

As many of the analysts appointed under these Acts were inexperienced, and even those who had considerable chemical knowledge differed widely in the conclusions they drew from their analysis, these Acts by no means worked well, and this led to the appointment of a Select Committee in 1874 and the passing of the "*Sale of Food and Drugs Act*, 1875" (which is still law), and provided that foods in general should be supplied to the public in as pure a state as possible, for by Section 6, "Articles sold must be of the nature, substance, and quality of the article demanded," and Section 9 prohibited "the abstraction of any part from an article of food so as to affect injuriously its nature, substance, and quality." The first Act, however, that deals specifically with milk is the "*Sale of Food and Drugs (Amendment) Act*, 1879," Section 3, where it provides for the taking of samples of milk at the place of delivery. The sample in this case is "taken," not "purchased," The place of delivery may be a producer's premises, or cart just before the milk is handed over to the retailer. In Lanarkshire it has always been the custom to take full advantage of this section of the Act. Where a sample is obtained from a retailer whose past record is a good one, or where suspicion falls on the producer, samples are taken on delivery, so that the real culprit may be brought to book.

One of the most important Acts with regard to the adulteration of milk is the "*Sale of Food and Drugs Act*, 1899," Section 4, which empowered the Board of Agriculture to make regulations with reference to the analysis of milk, cream, and cheese, and to fix standards for these. The result was the issuing by the Board of "*The Sale of Milk Regulations*" in 1901, wherein a presumptive standard is fixed for milk of 3 per cent. of milk fat and 8.5 per cent. of solids not fat. If milk falls below this standard it shall be presumed for the purposes of the "*Sale of Food and Drugs Act*, 1875," until the contrary is proved, that the milk is not genuine. The presumptive

* Presented to the West of Scotland Division at Glasgow, on 18th May, 1927.

standards fixed greatly assisted the Administrator in dealing with adulterated milk, as prior to this the standard for the composition of milk was in the hands of the Public Analyst, and varied in different parts of the country.

Many prosecutions have followed the setting up of this presumptive standard, which is the standard at the present moment. Unlike the Criminal Law of Scotland, whereby the accused is presumed to be innocent until he is proved to be guilty, under the "*Food and Drugs Acts*" the accused is presumed to be guilty until he proves the contrary. To rebut this presumption, many and sometimes very ingenious defences have been put up, a fairly common one being, where the vessel from which the sample was taken contained a small amount, that it was the milk of a single cow, and so well has the evidence been put together that it is sometimes difficult to break it down. It is a well-known fact that the milk from an individual cow or cows may fall below the standard in milk fat or milk solids other than fat, or both. It is my experience, however, after a very careful investigation extending over several years, at all seasons, and with varying kinds of feeding, and comprising the examination of over 3,000 samples of milk, that although one or several cows in a herd may fall below the standard, the mixed milk of a herd, say of three or more cows, never does, because many of the cows give milk far above the standard, which more than makes up the deficiency. When a deficient sample is obtained, and it is known at the time of purchase that it was from a single cow or was from a small herd of three cows, it has been the practice in Lanarkshire for many years to "appeal to the cow or cows," with the owner's consent, before instituting legal proceedings. If the samples from the cow or cows are deficient, no proceedings are taken.

A common defence for some time was that the milk had been sold from the tap at the bottom of a vessel which had been standing for some time, so that the cream had risen to the top, reducing the fat content of the milk at the bottom of the vessel, and *vice versa*, if milk is supplied from the top of a can, that cream is taken off and the residue of the milk is weakened by the process of selling in this manner to earlier customers. This defence was put up in an English case as early as 1877, but it has now been definitely decided by the Court of Session that it is up to the owner to see that the milk is properly mixed, and in the same condition as it came from the cow, so that this defence is now useless.

One of the most ludicrous defences put up in one of my cases recently, was that the cows had been frightened by a violent thunderstorm which had affected their milk. Unfortunately for the accused, the violent thunderstorm took place on the previous day, and their udders had been emptied of that day's milk by a milker beween times.

Rain has also been put forward as an excuse, the sample being taken in the open air on a wet morning and water thus being added to the milk before the Inspector had divided it into three parts, and in one case in Hull in 1880, the defendant affirmed that whilst milking the cows in the field on the morning in question it rained very heavily, and he thought that about a pint of water fell into each of the milking buckets.

A very extraordinary case occurred several years ago, where we obtained a conviction, and the Analyst's Certificate showed the sample to be above the standard. In this case the Inspectors arrived as the producer was mixing so many gallons of skim milk with that of sweet milk to the order of the retailer, which was not milk as it came from the cow.

From the cases quoted, it will be readily understood that the presumptive standard has given rise to considerable discussion among both producers and vendors, and the opinion has been freely expressed by them that the standard is much too high whereas, on the other hand, local authorities with experience consider it too low, which is my own experience, as I consider 3.5 per cent. of fat a very fair average standard. On 29th November, 1918, the matter was discussed at the annual meeting of the Scottish Chamber of Agriculture, when the following resolution was adopted:—

"That there should be an enquiry into the law affecting the sale of milk, and its administration, with a view to protecting the producer against vexatious prosecutions."

The terms of this resolution were communicated to the Board of Agriculture for Scotland for their consideration. In February, 1919, a similar resolution was drawn up by a Sub-Committee of the Central Executive Committee of the National Farmers' Union of Scotland, and a copy of the Report was forwarded to the Scottish Office. Deputations were received from these two bodies and the Highland and Agricultural Society, by the Scottish Board of Health and the Board of Agriculture for Scotland, on 8th January, 1920. The result was the appointment on 28th April, 1920, of the Inter-Departmental Committee on Milk to go into the whole matter and report. After sixteen meetings and the examination of fifty-two witnesses (representative of the dairy trade, medical officers, public analysts, physiologists, veterinary surgeons, etc.) the Committee issued their Report in 1922, and recommended with one or two dissenters, that for milk there should be a legal minimum limit for milk fat of not less than 3 per cent. and of other solids 8.5 per cent. For skimmed or separated milk the legal minimum limit for solids other than fat should be 8.7 per cent. That report was issued in 1922, and nothing further has been heard of it. Before departing from the subject of adulteration of milk, it might be mentioned that *Section* 4 of "*The Milk and Dairies* (*Scotland*) *Act*, 1914," prohibits the addition of colouring matter, etc.

So far I have only dealt with milk in relation to adulteration, and would now like to give a short history of the legislation passed with regard to disease, registration of dairymen, construction of premises, water supply, and general sanitation. The "*Contagious Diseases* (*Animals*) *Act*, 1878" gave power to the Privy Council (now Board of Health) to make Orders relative to dairies, cowsheds and milkshops, and the next step in the provision of a purer milk supply was the coming into force of "*The Dairies, Cowsheds, and Milkshops Order of* 1885." This Order prohibited a person suffering from a dangerous infectious disease or a person having been in contact with such an individual from milking cows or taking any part in the conduct of the dairy business. It also prohibited the use of the milk of any diseased cow, except for feeding swine or other animals after it had been boiled. It should

be noted, however, that this term did not include milk from a cow suffering from tubercle, as the word "disease" only included diseases which came under the "*Diseases of Animals Act*," *e.g.*, cattle plague, foot-and-mouth disease, etc. By the "*Dairies, Cowsheds, and Milkshops Order*" of 1899, *Section* 15 *of the* 1885 *Order* was so altered as to include the cow with tuberculous disease of the udder as certified by a veterinary surgeon.

*Section* 13 of the 1885 *Order* also empowers the local authority to make regulations for inspection of the cattle for prescribing and regulating lighting, ventilation, drainage cleansing of premises, utensils, etc., etc.

Later, *Section* 58 of "*The Public Health* (*Scotland*) *Act*, 1897" also provides against a party suffering from or having been in contact with infectious disease, taking any part in the milking of any animal, or engaging in any occupation connected with food. If, however, tuberculosis was made notifiable by any local authority, it became automatically included in the definition "infectious disease," and this Section of "*The Public Health Act*" prohibited tuberculous patients from carrying on any trade or business connected with food. As this might have been a hardship in certain cases, "*The Public Health* (*Scotland*) (*Amendment*) *Act*, 1907" amended Section 58 of the 1897 Act by the words: "without proper precautions against spreading such disease or infection," in the case of a person suffering from an infectious disease.

Section 60 of the 1897 "*Public Health Act*" empowers the medical officer of health to prohibit the supply of milk from any dairy that is likely to cause infectious disease. No such provision was made under the Dairies, Cowsheds, and Milkshops Orders.

From the reports of the two Royal Commissions on Tuberculosis, there was strong belief that the prevalence of tuberculosis of the glands, bones and joints, and intestinal forms of the disease, was largely due to the existence of tuberculous disease of the udder in dairy herds* and in view of this and the powers conferred upon local authorities by the "*Dairies, Cowsheds and Milkshops Order* of 1899," a commencement was made in the County of Lanark, in the year 1900, with the veterinary inspection of dairy herds. This work was carried out for a number of years by part-time veterinary surgeons, but developed to such an extent that in the year 1910 it was deemed advisable to employ the services of a full-time veterinary inspector, and later an assistant was also appointed. During the year 1926, 1,806 herds were inspected in the County of Lanark, consisting of 34,632 cows; 679 samples of milk were taken, and 66 of these were found to contain tubercle bacilli. In addition, 159 samples were found to contain other infectious organisms—streptococci, diphtheroid bacilli, etc.

No further legislation was passed in this direction until the "*Milk and Dairies* (*Scotland*) *Act*, 1914" was placed on the Statute Book, but the operation of this Act was postponed on account of the War until 1st September, 1925. The principal provisions of the Act are as follows:—

Section 3. Appointment of whole-time veterinary inspectors.

Section 4. Inspection of dairies.

Section 7. Registration of dairies.

Section 8. The making of dairy bye-laws.

Section 13. Milk of diseased cow not to be sold.

So far as the appointment of veterinary inspectors is concerned, the County of Lanark sanitary authorities forestalled the provisions of this Act, with the exception of the fact that power is now given to deal not only with milk from a cow with a tuberculous udder, but with milk from cows suffering from other infectious conditions. Section 13 states that it shall be an offence to consign, sell, offer or expose for sale for human consumption, the milk of any cow suffering from tuberculosis with emaciation, or with tuberculosis of the udder, or from any sore on the teats, accompanied by suppuration or bleeding, *or from any disease liable to infect or contaminate the milk*, and Section 14 states that every dairyman shall forthwith give written notice of any such disease to the local authority.

This, I am glad to say, now definitely takes in the *cow suffering from mastitis*, commonly termed a "weed," and produced by such organisms as the streptococcus, staphylococcus, and a fairly common one, a diphtheroid bacillus. I am only too pleased at having the opportunity of dealing with milk from such conditions, as I have observed some very bad cases. I remember being called out to see what might be an actinomycotic udder. One half of this udder was perforated like the rose of a watering can, and the pus was drip, drip, dripping from the apertures on to the bedding. It was a bad streptococcal mammitis. The farmer, on being questioned, informed me they were selling the milk from the other half, and that when milking was going on someone held a tin below the dripping half, a statement which I did not believe. That and many other instances convinced me that something drastic should be done in such cases to stop such a milk being supplied for human consumption. It has been our practice ever since this Act came into force, on getting such a milk, to send a letter, which I produce, to the farmer with the Statute quoted, asking him what he is doing to comply with the Statute, and strict supervision is kept on his supply, unknown to him, to make sure that he is not selling such milk for human consumption. Since the Act came into force on 1st September, 1925, I have dealt with about 300 such cows. It is important to note that the Act prohibits the use of the whole of the milk from such a cow. In many instances the dairy-keeper is of opinion that he can use the milk from the three healthy quarters of a cow suffering from an infectious condition in the other quarter, the impression being that there is no danger of the animal giving milk in an infectious condition from these three quarters. It has been the practice of the veterinary inspector in Lanarkshire to take a sample of milk from the affected quarter and a sample from the three normal quarters. On several occasions streptococci have been found in both samples, proving the liability to infection, although these quarters are apparently quite normal on clinical examination. It is important that the dairy-keeper should be impressed with the need for calling in his private veterinary surgeon in all cases where there is any abnormality of the udder. Properly treated, the condition is such that it may be cured, but I am afraid in many cases the farmer attempts to treat the condition himself to save the expense of calling in his veterinary surgeon. The

* Dr. Guy's figures for Edinburgh in 1922 were:—gland cases 30%, meningeal 18%, abdominal 50%, bones and joints 58%, and lupus 50% were due to the bovine bacillus.

result in some cases is that proper precautions are not carried out, and the infectious condition spreads throughout the byre.

That the germs of bovine mastitis are responsible for outbreaks of septic sore throat, many instances could be quoted. In a recent outbreak of sore throat numbering over thirty cases in a village in the county, where only a very few of the swabs taken showed diphtheroid bacilli, the milk supply was from two farms, and swabs from all those who handled the milk proved negative. A bacteriological examination was then made of samples of both supplies of milk taken in course of retailing, and the *Streptococcus mammitis* was found. On visiting the farms, accompanied by the veterinary inspector, one cow was found to be producing milk containing this germ, and instructions were given that this milk must not be used for human consumption. Further samples were taken from the retail carts with negative results, and it is significant that no further cases of illness were brought to the notice of the department.

It might be mentioned that the Tuberculosis Order, 1925, provides for the slaughter, with compensation, of all animals suffering from tuberculosis of the udder, or suffering from tuberculosis with emaciation and cough, or showing definite clinical signs of tuberculosis.

I have not yet dealt with the general cleanliness of the milk supply, but in recent years important legislation has been put into operation dealing with this subject. The "*Milk and Dairies (Amendment) Act*, 1922" postponed for a further period the coming into operation of the 1914 Act, but provided *Section* 3 for the Scottish Board of Health making an Order for the sale of milk under *Special Designations*. Up till this time all legislation had been in connection with the taking of samples for adulteration, the construction of cowsheds, etc., and infectious milk, but no provision had been made for the compulsory production of clean milk.

The first step in this direction was the issue of an Order in 1922, providing for the sale of milk under special grades. This was replaced by "*The Milk (Special Designations) Order (Scotland)* 1923." which provided for licences being granted under special designations, and set up a bacterial and a chemical standard for such milk. These standards are as follows :—

(1) *Certified Milk* to contain not more than 30,000 germs per cubic centimetre and no Coliform Bacillus in one-tenth of a cubic centimetre. This milk is produced from tuberculin tested cows and bottled at the farm.

(2) *Grade A (tuberculin tested) milk* to contain not more than 200,000 germs per cc. and no Coliform Bacillus in one-hundredth of a cc. This milk is produced from tuberculin tested cows but does not require to be bottled at the place of production.

(3) *Grade A Milk.* The bacterial standard is the same as for Grade A (tuberculin tested) milk, but the cows only require to pass a clinical examination carried out by a veterinary surgeon.

(4) *Grade A Milk pasteurised* (No.3 grade pasteurised). The bacterial standard in this case is the same as for certified milk.

The above four grades must all contain not less than 3.5 per cent. of milk fat, and must be sold to the consumer in sealed bottles and labelled accordingly.

(5) *Pasteurised Milk.* By an amending Order the bacterial standard for such milk was fixed as not more than 100,000 germs per cc., but the milk fat standard for such milk is only 3 per cent.

I consider this Special Designations Order the greatest advancement which has taken place during all these years, as it not only raises the chemical standard, but also ensures cleanliness with a standard for bacteria which, in my opinion, is the only reliable standard for *invisible dirt*. For *visible dirt*, the deposit test is sufficient to convince a farmer that the milk is filthy, and I produce an apparatus in use in the County of Lanark for carrying out this test. That farmers are taking advantage of the powers of "The Milk (Special Designations) Order" is proved by the fact that, at the present moment, the following licences held in the county number :—

| | | |
|---|---|---|
| Certified ... ... ... ... | 13 | 32 |
| Grade A (T.T.) ... ... ... | 19 | |
| Grade A ... ... ... ... | 4 | |
| Pasteurised ... ... ... | 1 | |

Before a licence is granted for "Certified" or "Grade A (T.T.)" milk each member of the herd has to be subjected to the prescribed tuberculin test, *viz.*, either the subcutaneous or intradermal test, together with the ophthalmic test, and all reactors must be immediately removed from the herd. I consider, however, there is a weak spot here, for say they are removed—What happens ? Unless the cows have a tuberculous udder or suffer from emaciation and cough, they do not come under the Tuberculosis Order of 1925 for immediate slaughter, but may by sale be drafted as milk producers into other herds such as Grade A, unknown to the purchasers. This being so, I think it would be advisable to have composite samples of all Grade A herds examined at intervals of, say, three months, for the presence of tubercle bacilli. If tubercle bacilli were found either by microscopical examination or by guinea-pig inoculation, the veterinary inspector should be instructed to examine the herd for the offending animal or animals, and procure a sample, or samples, of milk for further examination.

It will be noted that the fifth grade is Pasteurised Milk, which is milk "held" for half an hour at a temperature from 145° F., but not more than 150° F., and then cooled to 50° F. It must not contain more than 100,000 bacteria per cc., and *no standard is required for coliform bacilli.* In my opinion, this and the fourth grade, which is Grade A pasteurised, should be abolished, as there is no need for pasteurisation if due care is taken in the milking and handling of the milk afterwards. Pasteurisation is no guarantee that we are being supplied with clean milk, as no standard is set for the original milk before it is pasteurised. The original or raw milk at a recently established pasteurisation plant in the county contained over three million bacteria per cc., while in the pasteurised milk the bacteria were reduced to 90,000 per cc. Surely no one could say that was a clean milk, but a cemetery of dead germs, together with the filth which produced them.

I quite agree with Sir Robert Philip in his lecture to the Medico Chirurgical Society at Edinburgh on 4th February,

1925, when he stated that "*pasteurisation is whitewashing dirtiness and mess, and encouraging at every turn slackness on the part of the producer.*"

It is interesting to note that the standard for fat under the first four grades is 3.5 per cent., being .5 per cent. above the presumptive standard for ordinary milk, which many producers and retailers declare is too high, yet out of 392 samples examined under the Special Designations Order only 14 fell below 3.5,* while the majority averaged as high as 4.0 per cent. of fat. On occasion this was found to be due to the fact that the milk in the cooler was not allowed to collect and the sample obtained may have been one cow's milk, or to the cows not being properly stripped at the morning milking, 10 of the deficient samples being morning milk. When a sample below the standard of 3.5 is obtained, the producer's attention is drawn to the fact, and if it is found by subsequent sampling that the standard is not being maintained, the licence would be withdrawn.

With regard to clean milk, I not only cause samples to be taken from graded herds, but also have samples of the ordinary milk throughout the county examined bacteriologically in the same way, and also for visible dirt. Whenever a dirty specimen is obtained, the Sanitary Inspector is instructed to inspect the premises and methods of milking, in order that the farmer may be informed where to employ greater care for the production of clean milk. This method has met with splendid results, and it is hoped in a very short time a very great improvement will have taken place in the cleanliness of the county milk supply. From the experience gained, I consider it would be no hardship to have a standard set up for the bacterial content of milk, say, the standard that has been laid down for Grade A milk, and am of opinion that legislation in this respect is overdue.

In conclusion, it should be noted that milk as secreted in the udder of the cow is free from bacteria, but becomes contaminated in the ducts and the teats. After milking, the milk remaining in the teats readily becomes infected with germs from the bedding, etc., which multiply rapidly during the intervals of milking in this ideal medium and temperature for their growth. Unless these are removed by allowing the first three or four streams of milk to be drawn on to the ground, the milk as it leaves the udder must become contaminated. The other sources of contamination are derived from dirty unkempt cows, dirty hands of the milkers, and dirty utensils and methods of milking.

After it has left the farm it is subject to further contamination in transit in the retail shops, and in the house of the consumer, all of which could be avoided with a little care.

From experience gained with regard to graded milk, I consider the number of grades not only unnecessary, but most confusing to the farmers and retailers, and would suggest that they be reduced to not more than two in number, *viz.*, "Certified" and "Grade A." The only difference between "Certified" and "Grade A (T.T.)" licences is that milk *sold* as certified must be bottled almost immediately it comes from the cow, whereas Grade A (T.T.) may be sold in bulk. But the holder of a certified licence may also sell his produce as Grade A (T.T.) or Grade A in bulk. Therefore one licence would cover both. Remember the licence is granted "*to sell*" or "*expose for sale.*" Then, wherein does Grade A milk differ from ordinary milk? Only in the clinical examination of the cows at certain intervals and the milk to be retailed in sealed bottles; otherwise the methods for cleanliness are the same, and I would not consider it a hardship to have all milk brought up to the bacterial standard of Grade A. Pasteurised milk I would not recognise.

*(To be continued by Report of Discussion).*

* 7 samples 3·4%, 3 samples 3·3%, 3 samples 3·2% and 1 sample 3·1%.

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# The Veterinary Record

*30th July, 1927.*

## SIR JOHN M'FADYEAN.

The veterinary profession will learn with the profoundest regret of the resignation of Sir John M'Fadyean from the Principalship of the Royal Veterinary College, Camden Town. But in the life of men who have borne the heat and burden of the day for so long there comes a time when advancing years seek the repose they deserve, and activities must slow down. After the long and faithful service he has rendered to his profession and to public service generally, no one is more deserving or more entitled to a period of ease than Sir John M'Fadyean, and we pray that he may be spared many years wherein to enjoy it.

His severance from the active duties of Principal of our earliest College and Director of the Research Institute in Animal Pathology will create a gap which will be difficult to fill, but we know that the influence of his personality as a teacher and Principal will remain, and that his spirit and fine example will continue to be felt in all that the College stands for.

As a Governor he will be available for advice and guidance, and his great experience will be still an asset to the College. We are pleased to think, however, that his association with the Council of the Royal College of Veterinary Surgeons, wherein he has played so dignified and important a part, will not be disturbed. Indeed, we may hope that the liberation from the multitudinous cares and onerous duties as Principal of a School will afford more time for him to devote to the activities of the Governing Body of our Profession upon which its welfare so much depends.

## Royal College of Veterinary Surgeons.

### Membership Examinations, July, 1927.

### List of Successful Candidates.

#### Edinburgh.

*Class A.*

Anderson, J. R.
†Atkinson, J.
Boyle, F. T.
Cockburn, R. S.
Gordon, F. A.
*Jennings, S.
*Mackay, E. M.
*McLeod, M. M. K.
*McNeil, R.
*Omand, J.
*Robertson, R. H.
†Robinson, W. G.
Spreull, J. S. A.
*Stevenson, A. C.
Sutherland, G. M.
Stratford, J. R.

*Class B.*

Anderson, J.
Clyne, A. A.
Davison, W. S.
Forgrave, W.
Gibson, G.
Horne, W. H.
Macdonald, N.
*Massey, R. T. H.
Mayne, F. J. V.
McChlery, A. S.
McKinna, J. B.
McLaren, G. G.
Prentice, A. S.
Reid, J.
Spreull, A.
†Steele, A. P.
Stewart, C. A.
Urquhart, A. M.

*Class C.*

Blount, W. P.
Buckner, C. A. P.
Harcourt, K.
Harvey, C.
Macpherson, D. F.
Malaga, A.
Paley, R. W.
Simpson, S.

*Class D.*

Aston, F. W.
Burgess, J. W.
Cummine, J. M.
Holmes, J. W. H.
Johnson, G.
Kennedy, A. J.
Kyle, R. S.
Laing, J. M.
Mackay, W. M.
*Moore, R.
Pickering, G. F.
Watson, A. S.
Willett, R. A.
Wilsdon, A. J.

#### Glasgow.

*Class A.*

Fletcher, J. M.
†Gillespie, I. A.
Mackenzie, C.
*Mitchell, R., Junr.
*Ross, R. F.
†Stobo, T. W.
Weir, A. B.

*Class B.*

Doyle, H.
Kinghorn, F. J.
*May, T. L.
*Menzies, D. W.
Stewart, J. R.
*Stewart, Miss M.
Slaven, G.
Walsh, A.

*Class C.*

Barclay, A.
Brown, B.
Hillock, J. M.
*Ingram, J. McC.
Leckie, P.
*McArthur, J.
*McArthur, N.
†McDonald, J. M.
McGaughey, J.
Pottie, B. H.
*Stewart, H. G.

*Class D.*

Grant, W.
Harley, R.
Johnston, T.
Kyle, J. B.

#### Glasgow—*Class D—continued.*

MacGilp, A.
Morton, J.
Nicolson, J.
Nicolson, N.
Watt, J.

#### Dublin.

*Class A.*

Allen, D. J.
Begley, P. T.
Caffrey, J.
Campbell, J. J.
*Griffin, R. P. C.
Hynes, M. G. W.
McDonald, J. A.

*Class B.*

*Harris, A. P.
O'Brien, H. V.
*O'Connell, J. L.
Pennefather, T. E. R. K.

*Class C.*

Dunn, T.

*Class D.*

Brennan, J. J.
Glanville, W. H.
Hueffer, Miss K.
*Moloney, P.
*Moore, G. A.
Reeves, D.
Sadlier, T.
Sexton, M. A.
Tevlin, J. V.

† denotes 1st Class Honours.
* ,, 2nd Class Honours.

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### Fellowship Examinations.

Two examinations for the Diploma of Fellow have been held, namely, at Edinburgh on July 15th and at Glasgow on July 19th.

The following candidates have been successful:

July 15th, Zaki Morcos, M.Sc., D.V.H.
Thesis entitled: Foot-and-Mouth Disease.
Examiners: Dr. A. Leslie Sheather, D.Sc., M.R.C.V.S. and Professor D. C. Matheson, F.R.C.V.S., D.V.S.M.

July 19th, Hugh Begg, Jnr.
Thesis entitled: Parturient Paralysis of Ewes.
Examiners: F. T. Harvey, F.R.C.V.S. and John Brown, F.R.C.V.S.

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As was widely reported in the general press, an outbreak of foot-and-mouth disease near Maidstone on Tuesday of last week resulted in the Tunbridge Wells and South-Eastern Counties Agricultural Show at Tunbridge Wells being abandoned, much to the regret of thousands of people who had assembled in the town.

### R.C.V.S. Obituary.

Kerr, William Wallace, The Priory, Saffron Walden. Graduated, Edinburgh, 21st December, 1904. Died, 18th July, 1927.

Captain Kerr passed away after a long and severe illness, heart trouble having been contracted while on active service during the great war.

# CLINICAL AND CASE REPORTS.

## Carbon Tetrachloride Poisoning.

By A. SPICER, F.R.C.V.S., Oxted.

As one of the sufferers from the vagaries of carbon tetrachloride I write to give a description of its use on a flock of forty-five ewes suckling lambs about two months old. The ewes were being folded on turnip tops about 2½ ft. high, in flower, and they were also receiving a ration of cotton cake daily, but I do not know what quantity. They were kept without any food from about 4 o'clock on the previous afternoon and received the capsule about 10 o'clock next morning. Contrary to the instructions, they received their daily ration of cotton cake immediately afterwards, or roughly within half-an-hour. The following morning seven ewes were dead, three more were obviously dying, three more died later on and all the rest were upset by the drug. The carbon tetrachloride was proved to be quite pure on analysis. *Post-mortem* showed acute inflammation of all the stomachs, more particularly of the fourth.

In this case the only dry food given was cotton cake, but it was stated at a meeting of the South Eastern Division that sheep could be fed on cotton cake and dosed with carbon tetrachloride, but that it was not known how soon after dosing the cotton cake was given. It would be interesting to know if cotton cake or seed was fed shortly after the drug was given in all the cases where fatalities occurred and, if possible, how soon after. The question arises as to whether carbon tetrachloride acts as a solvent to something in the cotton cake and unites with it to form an agent that is poisonous to sheep. Experiments are being tried which may give an answer to this question.

## Bovine Tetanus.

By CHARLES WEIGHTON, M.R.C.V.S., Forfar.

The articles on bovine tetanus appearing recently have prompted one to record two cases met with during the Spring of this year.

CASE 1. *Subject.*—A roan milch cow.

I was asked by the owner to see this cow on March 22nd, with the description that there was "something wrong with the mouth," and that she was unable to swallow.

*History.*—This cow had dropped twin calves on March 6th, only a little assistance having been given. The animal had been well up to the day before my visit, when she had refused some of her food, and on this date (the 22nd) had eaten nothing. She had been slightly off her food a few days previously.

*Symptoms.*—A forward stretching of the head, general stiffness, and disinclination to move were characteristic symptoms of the case. There was a general tenseness of the muscles, which appeared most marked at the neck and jaws. The tail was slightly elevated.

The head was pulled round with difficulty, while the jaws could only be brought apart about one inch.

The third eyelid remained slightly more protruded than normally, due presumably to the tetanic spasms of the retractor oculi muscle. The temperature was 100.5°F.

The milk secretion was very much reduced. There was slight tympany of the rumen. That there was impaired vision was readily shown when the cow was turned loose. When she was excited the forelegs were placed slightly forward and the neck was further outstretched.

*Diagnosis.*—Tetanus.

*Prognosis.*—Unfavourable.

*Treatment.*—500 anti-tetanic units were given subcutaneously, and the animal was put into a dark loose-box, where she was given (by bottle) gruel, milk and eggs, together with alcoholic draughts.

On March 25th the symptoms were similar to those seen on the first visit. The temperature was 102.2°F.

*Treatment.*—500 anti-tetanic units, and a purgative draught of magnesium sulphate. In two weeks this case had made a complete recovery.

CASE II. *Subject.*—A red cross milch cow.

*History.*—This cow calved with a little assistance on Saturday, 7th May, and the retained placenta was removed two days later. She had been "off her food" for a few days, and was noticed to be ill on the 15th. When seen on the 17th May the cow showed general stiffness, the membrana nictitans was as seen in the first case and showed an occasional flicking partly across the eye, while the animal was walking. There was no tympany.

Breathing was very difficult because of the tenseness of the abdominal muscles.

*Diagnosis.*—Tetanus.

*Prognosis.*—Unfavourable.

*Treatment.*—500 anti-tetanic units together with the administration of stimulant foods. This cow was found in a state of collapse on the following day, and slaughter was advised.

Although no clue could be got to the mode of infection, it is apparent that the opinions held by authorities in animal pathology, that after calving a cow is either more susceptible to an attack of this disease, or that parturition lays the animal open to infection (probably from the alimentary tract, where the bacillus is present in healthy cattle), are here given a little support.

The chances of a longer period of incubation in the first case are likely to have played an important part in the animal's recovery.

Tetanus being such a rare disease in cattle, it is interesting that two cases should be met with within such a short time, and they are further worthy of comment, inasmuch as only one other case has occurred in this practice during a period bordering on forty years.

## Double Inguinal Hernia in a Maiden Bitch.

By JOHN K. SHAW, M.R.C.V.S., London.

The following case of a double inguinal hernia in a maiden bitch may be of clinical interest in that it shows that the condition may assume considerable proportions with no apparent effect on health for some long period.

*Subject.*—Manchester type bitch, aged nine years.

I was called to destroy the bitch, which was of a snappy nature, at the owner's premises and in his presence, not having previously seen the animal. With the owner's aid I administered grs. xxx of choral hydrate in ℥ss water; water; at the end of twenty-five minutes there was no apparent effect beyond a staggering gait of the hind limbs, the animal fighting against the drowsiness; the dose was then repeated and this, after a further lapse of twenty minutes, produced partial narcosis, in that she could no longer stand, lying on her side and, though apparently the vision was affected, hearing and sense of feeling were not yet lost. A further dose (this time roughly judged) was given, which, after about another ten minutes, produced apparent complete narcosis, but a minute later fairly violent though difficult vomition occurred. At this stage HCN was injected hypodermically.

With the owner's consent I made a rough *post-mortem* and found all organs healthy from an internal examination. The hernia (which I understood began some three years or so ago, having got gradually larger as time went on) I completely removed after ligaturing the viscera at the abdominal opening, which was about one inch long on the right side and two inches on the left. The mass weighed 4 lbs. 7½ ozs. and in the living animal reached to within about two inches of the ground.

The contents of the left hernial sac consisted of the uterine horn (with a large amount of adipose tissue adherent to it) about 4ft. 6in. of small intestine, the cæcum and 3 inches of large colon with only a little fat on the mesentery. The right sac contained the other uterine horn, together with an equal amount of adipose tissue to the left.

The history is perhaps of interest in that the bitch was very active and only a few days previously had caught a mouse 2 feet in the air by means of a running jump. She was also in the habit of catching flies by means of leaps of 18 inches or more into the air.

I also elicited the fact that the bitch had been suffering from vomition and diarrhœa for three days previously, which no doubt was the cause of my failure to produce narcosis earlier, due probably to delayed absorption from the stomach. This was not opened on *post-mortem*, in an endeavour to make as little mess as possible of the premises.

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" Back in the days of the ' Empire ' in the Philippines, when the Insurrection was about over, the volunteer troops were being replaced by regulars. Quite a number of animals which had become unserviceable were gathered in from the outlying stations and placed in corrals at my post awaiting the action of an inspector. On the day of the inspection, the following conversation ensued upon an animal brought out for condemnation :—

" Inspector : 'What's the matter with this one, Doctor ?'

" Veterinarian : 'Navicular disease, Sir.'

" Inspector (stooping down and looking upwards towards the umbilicus) : 'A hopeless case ; take him out and shoot him.' "—Lt.-Col. URI in his " Reminiscences," contributed to the U.S. Army *Veterinary Bulletin*.

## REVIEW.

[**Animal Nutrition and Veterinary Dietetics,** by R. G. LINTON, M.R.C.V.S. pp. 399 + 12, with many illustrations. Published by Messrs. W. Green and Son, Ltd., Edinburgh. 21s. net.]

This very excellent work, one of the Edinburgh Veterinary Series produced under the general editorship of Dr. O. Charnock Bradley, makes a most opportune appearance at a time when greater attention is being paid than ever before to the importance of the scientific feeding of animals in order to obtain the best growth and development, and the highest economical results. The problem is a very complex one indeed, when one considers the great diversity of type of animals in domestication and the different purposes for which they are kept. The commercial horse must be fed in such a way as to enable him to compete successfully with motor traction, the food producing animals must be brought to early maturity, and the milch cow must produce her maximum milk yield at economic rates. Poultry call for very special consideration, while the feeding of the dog requires attention on entirely different lines.

Professor Linton has done his task admirably and he is to be congratulated on his production. The work consists of six sections and an appendix. *Section I* deals with the composition and functions of foods, including a good chapter in vitamins—practically up to date in spite of the rapid developments in the investigation into these remarkable food factors. *Section II* deals with the individual foods and their composition, including both the natural and so-called artificial foods. There is here an excellent chapter on ensilage, and another on animal products, including fish meals. *Sections III* and *IV* are concerned with the nutritive value of foods and their preparation and storage.

After an exhaustive consideration of these principles, we come to their practical application in *Section V*, with separate chapters on the feeding of dairy cows, calf rearing, fattening of cattle, feeding of horses, of pigs, of sheep, of dogs, and of poultry. Perhaps one might especially refer to the chapter on the feeding of dogs, not because it is of any greater merit than the others, but because it is probably newer in its method of treatment.

The final section deals with some harmful foods, such as foods containing cyanogenetic glucosides, lathyrus peas, soya beans, castor seeds, bracken, and some flesh and fish products.

The appendix contains four tables, on the composition and nutritive value of foods, prepared in collaboration with Dr. Scott Robertson, a colossal labour resulting in a most useful summary for reference in compiling any form of substitutional dietary. In these tables we have just a little fault to find : the headings of the columns are placed upside down and certainly do not make for such easy reading as if they had been reversed.

We have no hesitation in asserting that every practising veterinary surgeon should procure this work, and that every veterinary student, preparing especially for his third professional examination, must read it, and that every educated agriculturalist will do much to overcome

his difficulties in economic feeding if he studies and carries into practice the teachings here so lucidly put forward by Professor Linton and his collaborators.

G. H. W.

## Report.

### Annual Report of the Veterinary Officer, Newcastle-on-Tyne, for 1926-7.

This interesting report consists of two parts, viz. :—

1. Diseases of Animals Acts, 1894-1925.

Details are given as to outbreaks of foot-and-mouth disease and the actions taken—special mention is made as to the introduction of unskinned pig carcases from the Continent. Under the heading of "Tuberculosis Order" five cows were disposed of at a cost of £38 9s. but salvage amounting to £27 12s. *plus* £25 17s. 6d. paid by the Ministry of Agriculture, making a total of £53 9s. 6d., resulted in a profit of £15 0s. 6d. to the Local Authority.

*Cowsheds.*

| | |
|---|---|
| Number of cowsheds ... ... | 31 |
| Number of cows ... ... ... | 410 |
| Number of cows found tuberculous | 5 |
| Number of cows found diseased but non-tuberculous ... ... | 4 |

2. Meat Inspection.

| | |
|---|---|
| Number of slaughterhouses ... | 101 |
| Number of animals slaughtered therein ... ... ... ... | 162,642 |
| Consisting of :— | |
| Horses ... ... ... ... | 1,416 |
| Cows ... ... ... ... | 716 |
| *Heifers ... ... ... ... | 11,245 |
| Bulls ... ... ... ... | 409 |
| Oxen ... ... ... ... | 5,600 |
| Calves ... ... ... ... | 4,764 |
| Sheep ... ... ... ... | 104,065 |
| Pigs ... ... ... ... | 34,427 |

* The number of heifers seems very high.

The total number of carcases found unfit for food was 430, of which there were 142 whole carcases and parts of 12 taken, due to tuberculosis.

Of 167 dairy cows sent for slaughter, 98 had been fattened after their milking period had ceased, and 69 were disposed of due to an outbreak of foot-and-mouth disease. *Post-mortem* examination showed lesions of tuberculosis in 137, or 82.00 per cent. Experiments are being conducted with a specially-prepared vaccine in an endeavour to render young animals immune to tuberculosis.

### Veterinarian President of N.S.W. Royal Society.

The *R.S.P.C.A. Journal* of New South Wales states :—"Members will perhaps have noticed that Professor J. Douglas Stewart, Dean of the Veterinary Faculty at the University, has been elected President of the Royal Society for this State. This is a very distinguished honour. As a keenly interested and valued member of our Council, Professor Stewart is tendered hearty congratulations from S.P.C.A. members throughout the State."

## Royal College of Veterinary Surgeons.

### Meetings of Council.

(*Continued from page* 648).

### Special Meetings.

Immediately following the quarterly meeting, a Special Meeting of Council was held. Colonel J. W. Brittlebank, C.M.G. (President), occupied the Chair, and the same members were present as at the two previous meetings.

The minutes of the previous meeting, which had been printed and circulated, were taken as read and confirmed.

Mr. Gofton : May I say, Sir, before Sir John M'Fadyean's motion is submitted to you, that in view of the decision in respect of a similar motion, that it was *ultra vires*, I asked the Secretary to submit to Mr. Thatcher a request that he would be prepared to give us his opinion as to whether this resolution was in order or not, and I think perhaps it might save time if the Solicitor were to give us his opinion on that point before the resolution is submitted.

Mr. George Thatcher (Solicitor) : Mr. President and gentlemen, I gave it as my opinion to the President, through your Secretary, Mr. Bullock, that the motion standing in the name of Sir John M'Fadyean was perfectly in order with the Charter, Acts and Byelaws of the College. At the request of the President, I submitted a short case to the Standing Counsel, Mr. Fortune, and with your permission I propose to read it, as it is quite short.

"I have carefully perused the proposed alterations. In so far as any option is given under the proposed Byelaws it is given to all students alike and the course to be complied with is prescribed by the Council itself acting under the powers conferred by the Charter.

"I see nothing in the proposed alteration which appears to me to be *ultra vires* or inconsistent with the rights or duties of the Council under the Acts, Charters and Byelaws of the College. (*Signed*) Robert Fortune."

That entirely confirms the opinion I had originally formed.

The President : That being so, I think no question can now arise regarding the legality of this motion by Sir John M'Fadyean. You accept that ?

Mr. Gofton : Quite.

Sir John M'Fadyean : I beg to move :—

"That the following alterations be made in the Byelaws—

1. To insert the following at the end of Byelaw 60—

'If a candidate desires to present himself for examination in Anatomy he must also submit a certificate to the effect that during the same period he has attended a course of not less than 50 lectures and 20 hours' practical instruction on the osteology and arthrology of the domesticated animals.'

2. To alter Byelaw 61 to read as follows—

'Every candidate except those exempted under Byelaw 62, who desires to present himself for the first time for the B or Second Professional Examination must, not less than seven days before the commencement of the examination, submit to the Secretary of the Royal College of Veterinary Surgeons, or other person appointed

for that purpose by the Council, a certificate to the following effect :—

Of having subsequently to having passed in the compulsory subjects of the First Professional Examination, been a student for one session at one of the affiliated veterinary schools, and of having therein satisfactorily attended during that period the following courses of instruction :—

A. *Physiology.*—A course of not less than 80 lectures on the physiology of the domesticated animals.

B. *Histology.*—A course extending to not less than 40 hours' practical instruction regarding the histology of the domesticated animals.

C. *Stable Management.*—Manipulation of the domesticated animals and principles of shoeing healthy animals. A practical course extending to not less than 20 hours' instruction.

D. *Anatomy.*—A student who has previously passed in anatomy as part of the A or First Professional Examination must also submit a certificate to the effect that he has attended :—

(1) A course of not less than 80 lectures on the anatomy of the domesticated animals.

(2) *Practical Anatomy.*—A course extending over not less than five months during which the student must have dissected the whole body of the horse at least once to the satisfaction of his teacher, and attended not fewer than 20 demonstrations on the anatomy of the other domesticated animals.

In the case of a student who has not previously passed in the subject of anatomy as part of the A or First Professional Examination the certificate must be to the effect that he has satisfactorily attended during two complete sessions (*a*) a course of not less than 130 lectures on the anatomy of the domesticated animals ; (*b*) a course of practical anatomy extending over not less than ten months, during which he must have dissected the whole body of the horse at least once to the satisfaction of his teacher, and attended not fewer than 40 hours' practical instruction on the anatomy of the other domesticated animals.'

3. To alter Byelaw 76 to read as follows :—

'The subjects for each examination, and the time to be devoted to each subject shall, subject to the provisions of Byelaw 60, be as follows—

EXAMINATION A.

1. *Chemistry and Elementary Physics.*—Written, 2 hours ; oral, 30 minutes.
2. *Biology, Elementary Zoology and Botany.*—Written, 2 hours ; oral, 30 minutes.
3. *Anatomy* (*Osteology and Arthrology*).—Written, 2 hours ; oral, 15 minutes.

EXAMINATION B.

1. *Histology and Physiology.*—Written, 2 hours ; oral, 30 minutes.
2. *Stable Management and Manipulation of Domesticated Animals, and Principles of Shoeing Healthy Animals.*—Oral only, 30 minutes.
3. *Anatomy of Domesticated Animals.*—Written, 2 hours ; oral, 20 minutes.

Students who have not previously passed in anatomy as part of the A examination must also take the examination paper on osteology and arthrology specified above in examination A, and be examined orally for an additional 15 minutes.'

4. To alter Byelaw 86 to read as follows :—

'The same external examiners shall be appointed to examine in anatomy in the A and B examinations, but no external examiner shall be appointed to examine in two subjects.'

5. To insert in Schedule II after the words 'Examina- A,' the following :—

'1. Anatomy of Domesticated Animals,* Bones, Ligaments and joints of the Horse, Dog, Ox, Sheep and Pig. The student will also be expected to possess a general knowledge of the skeleton of the Cat and Fowl.' "

*The examination in this subject may be taken at the Class A or Class B examination at the option of the student. (See Byelaws 61 and 62).

In doing so, Sir John M'Fadyean said : I will only remind the Council that it approved of alterations that were proposed by Professor Whitehouse at the January meeting of Council, and that what appeared to be the will of the Council in that matter could not be made effective because we were informed that some of his proposals were *ultra vires*. I had, of course, ascertained before to-day that our Solicitor did not think that there was anything *ultra vires* in the motion which I am proposing to-day. Professor Whitehouse's proposals, which I think I seconded, would, I believe, have had precisely the same effect as the present proposals will have if they happen to be carried, but with the difference that under Professor Whitehouse's proposals the option would not have lain with the students to decide whether they would present themselves for the whole of anatomy at one sitting, or whether they would take part and leave part to another sitting. Among the objections raised to the alterations that were carried at the January meeting was that there would be a certain inequality, that is to say, that it was undesirable that a certain school should be examined under the old system and other schools under the new system, possibly at the direction of the principal. I think under what is now proposed all difficulty of that kind has been avoided. If my proposals are carried through we shall revert to the old system, under which students will be able to present themselves for the anatomy examination in two parts, but it will be entirely at the option of the students whether they do so or not. If it should happen that at one school it is decided that what for convenience is called the new method is the one preferred, whereas at other schools the system of taking the examination in two parts is preferred, the examination will be absolutely identical. There will be the same examiners, and the same questions will be set for the examinations, just as at present. I quite appreciate that the Council does not want to hear at any very great length a discussion on what might be called the merits of the different methods of teaching anatomy. One of the points raised on the previous occasion to which I

might refer was that one cannot point to any subject that has been divided up as was done with anatomy. Even supposing that had actually been the case, I am not prepared to admit that it is a very sound argument against the proposal that we should permit a division in the case of anatomy. But as everybody knows, chemistry is quite generally, although not with us, divided into two parts — I am speaking of the medical schools and the science schools also. The student is allowed to present himself for inorganic chemistry, and, after an interval of study, to present himself for organic chemistry. I want to point out that the Council need not be interested as to what is the best method of teaching. In the last discussion it was argued that the Council had nothing to do with the teaching but only with the examining; all that they had to see was that the student was properly examined. I do not propose that any alteration whatever shall be made in what has been in force for 30 years. In the event of the alteration now proposed being carried out, no compulsion will be brought to bear on Professor Bradley, for instance, as to whether he shall teach by the old method or the new method. I say "he," because I am glad to say that I have found myself in this matter in complete accord with all the teachers of anatomy in this country except Professor Bradley. I admit that is a very great exception, but I do not think it will be found that Professor Bradley will go so far as to demand that the teachers of the other schools shall be compelled to adopt the method of teaching that he himself prefers. I think it will be very difficult for him to find a good argument against the proposal that he should be allowed to teach his students as he thinks best, and that in the other four schools we shall be granted an equal liberty. I think it would be a very interesting thing to observe, as far as one can get the information, what is the best method of teaching anything, by observing what are the results of the examinations in the different schools. At any rate, to begin with, if the alterations I am now proposing are carried out, probably for the first year Professor Bradley and the students under him will have a great advantage if he does not now change his mind, that is to say, if he advises them that they are not to go up for the examination in anatomy until after two years of study. If it works out as he expects he will reap the advantage that his students will pass in a larger proportion, but if it works out exactly as is apparently expected, as it ought to happen from the arguments that have been used, then, of course, the other schools will naturally refuse to continue under a disadvantage; they will exercise the option allowed, and it will not be necessary to bring the matter before the Council again. Without further explanation at present I beg to move that the Byelaws be altered in accordance with the notice of motion I have given.

Professor WHITEHOUSE: I have the very greatest pleasure in seconding Sir John M'Fadyean's amendment of the Byelaws. Of course, I cannot say that I agree with everything he said because I think my method is the best, but with everything else that he said I am in most hearty agreement. A point that he did not make in his proposal is that it would very largely increase the examination. Both the oral and the written are of extreme value, especially for those who are going to take the two years in one; so that it is a distinct improvement, to my mind, on the proposal that he originally made which was turned down for being *ultra vires*. I have great pleasure in seconding the motion.

Dr. BRADLEY: As I seem to be the person against whom criticism has been mainly levelled to-day let me reply very briefly. I can do so in a very few minutes. It amounts to this, that rather than have Sir John's present motion made part of the Byelaws I will willingly and gladly go back to the old system, bad though it is and though it is full of what I call defects. I know Sir John does not agree. I do not know if the members of Council have read carefully this motion; I take it for granted that they have. But whether they have or have not, I do not know whether they quite realise the position the teacher will be in if his students may exercise a choice. I personally regard that with a very considerable amount of distrust. I have no desire that part of my class shall be preparing itself for a certain examination and that the other part shall be preparing itself for another examination. I am not in agreement in the least with Sir John when he says that this method will ensure equality, I think, if he will permit me to say so, it rather tends to inequality. The requirements are not the same for both classes. Those who take anatomy under, shall we call it, the old plan get off, as I read it, with five months' practical anatomy. On the other hand, those who propose to postpone their examination in anatomy to the end of the second year have to take ten months' training in anatomy. I do not object to the ten months in the least, but I think everybody will agree that five months is not equal to ten. That, therefore, is an inequality, I should say, according to the requirements. I am still of the opinion that it is a huge mistake to divorce bones and joints from the rest of the anatomy of the animal. I have heard nothing from teachers of experience that will convince me that I am wrong in saying that bones and joints should not be considered apart from the rest of the anatomy of the animal. According to Sir John's motion, students who take the whole of the examination in anatomy will have to spend an equal time over joints and the rest of the anatomy in the written examination; that is to say, they have two hours' written examination in bones and joints and two hours' written examination on the rest of the anatomy of the animal. They have to submit to 20 minutes' oral examination on other than bones and joints, and 15 minutes on bones and joints. I will not do more than merely call attention to the proportion there is between 15 minutes and 35 minutes. Thirty-five minutes would be the total time and 15 minutes of the 35 minutes would be occupied with bones and joints, that is three-sevenths of the oral examination. I think no one can really claim that bones and joints constitute three-sevenths of the anatomy of any animal. Sir, I wish to make no further comment, except that I regard this as worse than our first state, and I am going to propose quite frankly as an amendment that we revert to our original examination.

Professor CRAIG: I desire to support the motion in the name of Sir John M'Fadyean and I wish to make clear my position. I was one of those who opposed any change in the old regulations in regard to anatomy, believing that they served their purpose well and that of all the subjects

of the curriculum anatomy was the one in which the regulations best fulfilled this purpose. But these are days of compromise and the Council did not agree with me in that respect. I was in a minority and they have come to the decision that alternative examinations should be permitted, and it was only through some technicality or some defect that the scheme did not pass at the last Special Meeting of Council. It seems to me the proposal now put forward by Sir John M'Fadyean causes a reversion to the old type of the syllabus in the curriculum, in the sense that the examinations which will be held, will be held on the old lines save that where the students may not be in a position to present themselves at the first professional examinations they can do so at the second. I think that, in view of the findings of the Council, this is the best proposal that can be put forward. I may say it is better than the old one that was rejected at the last Special Meeting if only for one reason. You will find that with regard to the prizes there will be great inequality as between two students, one who has taken the examinations under the old regulations and one who has taken them under the new. I only put that forward as a minor point with regard to the whole of the proposals. I have much pleasure in supporting the proposals of Sir John M'Fadyean.

Mr. SLOCOCK: I wish to second the amendment proposed by Dr. Bradley. I cannot speak with the authority of a teacher, but it seems to me that one great essential that we must have is uniformity in examination, and it seems to me that is the only means of securing it.

The PRESIDENT: I am afraid that a proposition as an amendment is not in order. We may, of course, if it is your wish, subsequently come to a decision only after this particular Notice of Motion which has been given by Sir John M'Fadyean has been dealt with.

Dr. BRADLEY: I will re-frame my amendment if it is not in order.

The PRESIDENT: I think you will have to give notice of motion.

Professor BUXTON: We have not yet had an opportunity of seeing how the new method works in practice. It seems to me to be rather a pity to keep on changing and modifying our views. It may possibly convey to the mind of the outsider some lack of stability of purpose, which I am sure is absent. Might I suggest, Sir, in order to consider the matter at our leisure in all its aspects, that this question might be referred to a Committee for full consideration and subsequent report to this Council. It will give us perhaps an opportunity of getting some sort of idea as to how the new method of examination is going to work; and I think one must admit that, simply taking cognisance of the facts and figures which Dr. Bradley brought before our notice, it would be extremely unwise to decide here and now in more or less urgency a question which may lead to somewhat unpleasant, unforeseen issues in the future. I would, therefore, like to suggest that this matter be referred to a Committee for consideration and report to the Council at some future date.

The PRESIDENT: I think that can only operate if the proposer of the motion is agreeable. Are you agreeable to that course being adopted, Sir John?

Sir JOHN M'FADYEAN: Of course I am not, Mr. President.

Mr. GOFTON: I opposed the motion which was submitted by Sir John on a previous occasion. It has been suggested this afternoon that on the last occasion on which a motion of this kind was submitted to you the Council had changed its mind from the opinion it expressed only twelve or eighteen months before in deciding to alter the Byelaws and to institute an examination along the lines on which it is at present in force. I want to put clearly to the Council that the statement that the Council had changed its mind is quite incorrect, because the number of those who voted for Sir John M'Fadyean's motion on the last occasion was a minority of the Council. It was 12 members out of 32; it was not even a majority of those who were present at the time. I raise that question in this connection, because I do not want the Council to be misled by a statement to the effect that they have completely turned face and changed their mind on a similar motion to the one which is before you to-day. It does seem to me that, while it is technically in order under our Byelaws and our Charters, it is a very undesirable procedure to have carried on from this College two systems of examinations simultaneously—one system in one school and another system in another school, and quite conceivably the two systems going on side by side in the same school. I can see nothing which is more prejudicial to the efficiency of teaching or the efficient conduct of our examining. I think it would be more desirable and very much safer in the interests of the College if we did as Dr. Bradley sugrested, revert to the old system, although I do not agree that it is the best. I would infinitely rather see that carried than that a motion such as Sir John has put before us to-day should be accepted. It would open an extremely dangerous precedent if we accept this motion by Sir John.

Dr. SHARE-JONES: I am one of those who supported the old system as it stood. There is no necessity for me to recapitulate here what I said in support of the view which I then held. I am now faced with a suggestion from those who opposed that they would prefer to go back to the old system rather than plunge us into what is tantamount, in their opinion, to a mess. (A voice: Chaos.) That is the view they hold now. But I would like to point out, Sir, that this Council passed, in spirit, at any rate, this resolution which is before us. It was carried at the meeting of Council. Whether there were many there or few it makes no difference at all. The position that has arisen now is due to the fact that our legal advisers at that time did not point out to us that the form in which it was proposed was *ultra vires*. All that comes before us here is the principle that lay beneath the proposal that was then passed. The principle is here simply put before us in another phraseology which brings it in accordance with the Byelaws as interpreted by our legal advisers. It is not the fault of the Council that we have to discuss it again to-day; the fault is that that legal position was not pointed out to us at the time. The principle was approved by the Council and that is all we are asked to do this afternoon. I support Sir John most heartily.

Mr. LIVESEY: Are we bound to have the discussion completed this afternoon, Sir?

The PRESIDENT: I think so. If there are no other speakers, Sir John M'Fadyean has the right to reply.

Sir JOHN M'FADYEAN: I must begin by protesting very solemnly against the view that if effect is given to these proposals there will be any lack of uniformity. (Hear, hear.) That was the sole point of Mr. Slocock's speech. Mr. Slocock cannot have studied what was on the notice board. There will be no lack of uniformity. All students will have to go before exactly the same examiners and answer precisely the same questions. Professor Buxton's speech may be taken as dragging a red herring across the trail. It had nothing to do with the subject in my view; it was not, I submit, a serious argument. I have the very greatest difficulty in understanding Dr. Bradley's attitude. It astonishes me beyond measure that he should refuse the liberty which my proposals would accord him to teach in what he has informed the Council is the only good method. He refuses that, and would actually, if the regulations had permitted him, have moved that he himself should be tied down to the old method. He has the right to a choice, and I put it to you: Is it reasonable that anyone should invite the Council to vote against these resolutions because we in Dublin, Liverpool, Glasgow and London think another method of teaching is as good, and propose to continue it? With regard to the suggestion that we should wait until July next and should take into consideration the figures which Dr. Bradley gave us, his figures were only with regard to attendance. Does anyone expect that the July examinations will enable us to judge whether it is favourable or not? I do not think so.

Professor BUXTON: I rise to a point of order. I did not say the July examinations.

Sir JOHN M'FADYEAN: Sir, the Council must judge whether any unfairness would be done to anyone, or whether it is in the least likely to be detrimental to the education of the student. I think it was not quite fair of Mr. Gofton to suggest that the Council had not given proper consideration to this proposal.

Mr. GOFTON: I do not think that is fair. I simply pointed out that a majority of the Council had not voted for it.

Sir JOHN M'FADYEAN: The fact which stands beyond contradiction is that at the meeting in January a majority of the Council who voted were in favour of Professor Whitehouse's proposal, which was the same as mine, except that the part of it which said that Principals of the schools were to decide whether the student were to be presented in one way or another was *ultra vires*. I agree with Professor Whitehouse that this is a much better motion. It is better in the sense that it seems to me impossible for anyone, who has really grasped what it means, to maintain that there is any unfairness in it. I ought further to say that if it should turn out that it appears that the present system, which comes into operation this month, is not working well, it will not, as Professor Buxton suggested, require new legislation. We can all work under the old without any change in the Byelaw.

The motion, proposed by Sir John M'Fadyean and seconded by Professor Whitehouse, was then put and declared by the President lost, 6 voting for.

MOTION BY DR. BRADLEY.

Dr. BRADLEY moved the following motion:—

"That from the First Schedule (Preliminary Examinations in General Education) the words 'Examination for Junior Certificate (with credit in each subject)' under the heading College of Preceptors, and the words 'Preliminary Examination in General Education (with credit in each subject)' under the heading Educational Institute of Scotland, be deleted."

I think we are all agreed that the examinations indicated by these words that I have read are not such as we desire in the future at least to accept. I move accordingly.

Mr. REES seconded the motion, which was carried unanimously.

MOTION BY MR. LIVESEY.

Mr. LIVESEY: I beg to move:—

"That Byelaw 103 be amended by the insertion of the words 'by each examiner,' after the word 'Examinations' in line 2.

"That Byelaw 101 be altered by the addition of the words—'Any Thesis submitted for the Fellowship Diploma must be satisfactory as regards literary presentation, as well as in other respects, and if not already published in an approved form must be submitted in a form suitable for publication.'"

That will bring the conditions with regard to the Thesis into line with the requirements of the London University.

Mr. KING seconded the motion, which was carried unanimously.

MOTION BY PROFESSOR BUXTON.

Professor BUXTON: I beg to move:—

"That Byelaw 103 be altered to read as follows:—That in the event of the Thesis being accepted, the candidate may be required to present himself at the Royal College of Veterinary Surgeons or at such other place as may be determined to be further tested either orally or practically, or by written papers, or by all these methods at the discretion of the Examiners in that branch or those branches of Veterinary Science to which the subject of the Thesis belongs, but it shall be within the discretion of the Examiners to reject the candidate without such further test; or in case the Examiners shall, upon examination of the Thesis and of any other contribution or contributions to the advancement of Veterinary Science, submitted by the candidate, hold the same to be generally or specifically of such excellence as to justify the exemption of the candidate from any further test, he may be so exempted provided that the report of the Examiners shall set forth the fact and the grounds of such exemption."

This, as you know, is a formal matter, the proposed alteration having already been accepted by the Council at its last meeting. I therefore simply formally move the alteration.

Dr. BRADLEY: I second that.

Professor GAIGER: I should like to ask if it is quite so formal as all that, because I notice the words are included, "And of any other contribution or contributions to the advancement of Veterinary Science." Does that mean that other published contributions will be accepted in the place of a Thesis? If that is so, I do not think that is a good place to put it in; in fact, I think it is a bad place to put it in in view of what Byelaw 101 says. Byelaw 101 definitely lays it down that a Thesis for the Fellowship must be submitted upon certain branches of veterinary science.

The PRESIDENT: Did you notice that in front of the words that you read the following words also occur: "Or in case the Examiner shall upon examination of the Thesis *and* of any other contribution"—not "*or* of any other contribution."

Professor GAIGER: But we say nothing about that under Byelaw 101. We cannot introduce it as an aside. Byelaw 101 does not say anything about any other contributions. Is the purport of this to allow all published contributions being accepted in place of a Thesis or in addition to a Thesis? I want that to be made quite clear.

Professor BUXTON: The suggestion was, if I remember rightly, that published contributions should be taken into consideratior in conjunction with, that is to say, in addition to, a Thesis, and not necessarily instead of a Thesis. I think that is the right interpretation.

Professor GAIGER: May I say that it seems to me the wrong place to bring it in. I may say I am quite in favour of the motion, but I am not in favour of it coming in here. I think it should come in Byelaw 101. A minor point is the enormous length of this Byelaw. You start off under pretty good conditions, but you are left breathless at the finish. It is the longest sentence in the whole of the Byelaws. If we could divide it into two it would be better.

The PRESIDENT: You cannot alter it now. You must either vote for it or against it.

Professor GAIGER: Are we committed always to have to throw out a motion simply because we cannot put in a comma?

The PRESIDENT: If you read it in time on the notice board you can give notice of an amendment.

Professor GAIGER: But we only have the motion read out at one Council meeting, then it is put on the board, and it is necessary to put up another motion at the same time that the original motion is put up. I do not think our system is a good one.

The PRESIDENT: I am afraid we cannot alter the system to-day. I must be ruled by the conditions as they are. It is in the Charter.

Sir JOHN M'FADYEAN: May I say that I think it would be a very serious condition of affairs if anyone could come here and alter the Byelaws without giving notice.

Professor GAIGER: That is not my suggestion.

Sir JOHN M'FADYEAN: I thought it was. Your amendment might be something quite new that nobody had thought of, although you suggest that it might be a trifling amendment.

Professor GAIGER: As long as we keep to the sense of the motion.

Sir JOHN M'FADYEAN: It would be extremely difficult sometimes for the President to decide what was a change of sense. The safe method is not to permit alterations of Byelaws which have not been suspended on the board and due notice given. I think there can be no possible objection to altering this, if it be an alteration to the effect that the Examiners can take into consideration besides the Thesis other contributions to the advancement of Veterinary Science, because I know that that is permitted in the case of theses submitted to the University of London. What is not permitted is that previously published papers shall be presented as the Thesis.

The PRESIDENT: I am afraid the motion must stand or fall as it is set out on the Agenda. If you want to adopt any amended form you can give notice for the next meeting. Mr. Bullock has gone carefully into this, and it is accepted in this form by the University of London. That is where he has taken it from.

Professor SHARE-JONES: I support the view that a published work of merit should be accepted in lieu of a Thesis. There is not a University in this country in which that would not obtain.

The motion was then put, and declared by the President carried.

This concluded the business of the Special Meeting of Council.

A hearty vote of thanks was accorded to the President for his conduct in the Chair, and the meeting terminated.

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At a further Special Meeting of Council held at the College, 10 Red Lion Square, London, W.C.1, on Wednesday, July 13th, 1927, there were present Lt.-Col. J. W. Brittlebank, the President, in the Chair, Mr. G. H. Livesey, Mr. J. W. McIntosh, Major-Gen. Sir John Moore, Lt.-Col. P. J. Simpson, Mr. S. H. Slocock, Mr. E. Alfred West and Professor G. H. Wooldridge.

The minutes of the previous Special Meeting were read and signed as correct.

Letters of apology for absence were received from Major Abson, Dr. Bradley, Mr. Carter, Professor Gaiger, Messrs. Gofton, Hobday, Holroyd, Hughes, Male and Lt.-Col. T. Dunlop Young.

*Confirmation of Byelaws.*—(*a*) On the motion of the President, seconded by Mr. McIntosh, it was resolved:—That the following alteration to Schedule I passed at the previous special meeting, be confirmed.

(*a*) That from the First Schedule (Preliminary Examinations in General Education) the words "Examination for Junior Certificate (with credit in each subject)" under the heading *College of Preceptors*, and the words "Preliminary Examination in General Education (with credit in each subject)" under the heading *Educational Institute of Scotland*, be deleted (to take effect in respect of certificates given on the result of examinations passed after 31st August, 1928).

(*b*) On the motion of the PRESIDENT, seconded by Mr. WEST, it was resolved that the following alteration to Byelaw 101 passed at the previous Special Meeting be confirmed:—

(*b*) That Byelaw 101 be altered by the addition of the words "Any thesis submitted for the Fellowship Diploma must be satisfactory as regards literary presentation as well as in other respects and, if not already published in an approved form, must be submitted in a form suitable for publication.

(*c*) On the motion of Mr. LIVESEY, it was resolved that the following alteration to Byelaw 103 be not confirmed:—

(*c*) That Byelaw 103 be amended by the insertion of the words "by each Examiner," after the word "Examination" in line 2.

(*d*) On the motion of Mr. LIVESEY, seconded by Colonel SIMPSON, it was resolved that the following alteration to Byelaw 103 passed at the previous Special Meeting of Council be confirmed:—

(*d*) That Byelaw 103 be altered to read as follows:—'In the event of the Thesis being accepted, the candidate may be required to present himself at the Royal College of Veterinary Surgeons or at such other place as may be determined to be further tested either orally or practically, or by written papers or by all these methods at the discretion of the Examiners in that branch or those branches of Veterinary Science to which the subject of the Thesis belongs, but it shall be within the discretion of the Examiners to reject the candidate without such further test, or in case the Examiners shall, upon examination of the Thesis and of any other contribution or contributions to the advancement of Veterinary Science, submitted by the candidate, hold the same to be generally or specifically of such excellence as to justify the exemption of the candidate from any further test, he may be so exempted provided that the report of the examiners shall set forth the fact and the grounds of such exemption."

*I V.—Common Seal.*—It was resolved that the Common Seal of the College be attached to the Byelaws as altered.

*Notices of Motion.*—The PRESIDENT gave notice that at the next meeting of Council he would move the following alterations to Byelaws, which had been suspended on the notice Board on July 1st:—

*Byelaw* 110.—That Byelaw 110 be amended by the addition of the following words after the word "Examiners" in line 6: "of whom one shall act with the teacher for the examination in Veterinary Hygiene and Toxicology and the other shall act with the teacher for the examination in Meat Inspection, Milk and Dairy Inspection."

*Byelaw* 113.—That Byelaw 113 be altered to read as follows: "In each of the two groups,two papers shall be set, one on each section, each paper consisting of eight questions of which six must be answered. Three hours shall be allowed for each paper."

*Byelaw* 115 (*a*).—That Byelaw 115 (*a*) be altered by the omission of the first paragraph and by the insertion of the following words after the word "Examination" in the second paragraph—"in each subject."

### BREEDS OF PIGS.

"The attempts of the Ministry of Agriculture to standardise the types of pigs are meeting with considerable opposition. This is not unexpected, since increased uniformity in the commercial pigs of the country would imply the propagation of fewer breeds. Criticism of the scheme comes, of course, from supporters of the breeds that are threatened with discouragement. It is easy to blame the owners who are incensed by the rejection of the classes of pig they keep, but those who adopt this course should consider how they would act had their favourite varieties been excluded from the chosen group. The problem can be solved only by prudent reasoning and cordial co-operation among all parties. The breeders, whose breeds are not favoured by the buyers, would do well to sink excessive preferences and shape their methods and choose types in conformity with the requirements of the best markets."—*The Times.*

# DIVISIONAL REPORTS.

## Lancashire Division.

ANNUAL MEETING AND DINNER AT MANCHESTER.

(*Continued from page 656.*)

THE ANNUAL DINNER.

The Annual Dinner followed, the chair being taken by the President. Others present were Messrs. E. J. Burndred, E. L. Butters, J. B. Chadwick, F. G. Edwards, J. Holroyd, G. H. Locke, R. C. Locke, D. E. Orr, H. G. Rogers, J. D. Whitehead, W. Woods, A. Munro, J. K. Bateman, J. O. Powley, J. Adamson, F. Hopkin, A. W. N. Pillers, J. Spruell, Prof. S. H. Gaiger and Col. J. W. Brittlebank.

Amongst the guests were Prof. G. H. Wooldridge, Doctors Butterworth, McClure, and Taylor, Aldermen T. Turnbull, J. Jones, and C. Hornby, Messrs. B. Heaton, J. Robertson, C. R. Wood, Miss N. Kenyon, Mrs. J. H. Wright, Mrs. J. W. Brittlebank, Mrs. F. Hopkin, Mrs. J. K. Bateman, Mrs. G. H. Locke, Mrs. R. C. Locke, Miss Locke, Miss Taylor, Mrs. J. Holroyd, Mrs. E. J. Burndred, Mrs. J. B. Chadwick, Mrs. F. G. Edwards, Mr. and Mrs. Orme, Mr. and Mrs. Kent.

After the loyal toasts had been honoured, the toast to the Medical Profession was proposed by Mr. A. W. NOEL PILLERS; and Dr. TAYLOR, Assistant Medical Officer of Health, Manchester, responded.

Dr. BUTTERWORTH, County Medical Officer of Health, Lancashire, in proposing the toast to the Royal College of Veterinary Surgeons, said that adventures were happening to him that night. He was originally asked to respond to the toast to the Medical Profession, and had prepared notes accordingly, but he now found that the notes he had made would not suit. (Laughter.) However, it gave him great pleasure to propose the toast, particularly as it was coupled with the name of Colonel Brittlebank, and Colonel Brittlebank was a man whom he had known for many years. He was a man who "called a spade a spade," and who had rendered great service to his profession and public health work generally.

Colonel BRITTLEBANK, in response, said his first duty was to pay tribute to Dr. Butterworth for the kind way in which he had proposed the toast. He was glad that Dr. Butterworth was present, and he knew that he had come after a good deal of sacrifice. As an old member of the "Lancashire," one who some years ago was its president for two successive years, little dreaming then that he would attain the honour of becoming the President of the Royal College, Colonel Brittlebank said he found it a little overpowering, and he hoped his audience would excuse him if he found it rather difficult to respond. It was due to the support of the Lancashire Division that he entered the Council of the Royal College. During the years that he had been a member of the "Lancashire" men had come and gone, many of whom meant much. Men like the late respected Sam Locke, Edwin Faulkner, and others had left a great mark in the history of the Division. Gus Taylor, he was glad to say, was still a member but, he regretted,

not in very good health. He rejoiced to see William Woods present that night and hoped he would be present for many years to come. (Hear, hear.) The part that Division played in the life of the profession was difficult to estimate, when one tried to calculate the steps by which the profession had progressed. The Lancashire Division represented a body of men situated mostly on the North-Western portion of England, and since it was formed in 1862 it had played no mean part in the progress of the profession. Where did the profession find itself to-day? Most of them who were members felt satisfied that it has not stood still. Indeed, it could not stand still—it was no mean profession, it was progressing, and it was a profession which played an intimate part in the general welfare not only of agriculture, but of public health. It had served its country well and had a lot more service to give. Dr. Taylor, who was one of his colleagues, had referred to the team work which existed in the Manchester Public Health Service, and which he hoped would always prevail. It had been demonstrated that night. Dr. Taylor, who was not warned about making a speech, came as his guest, hoping that he would not be disturbed, and yet he readily responded when asked to reply to the toast to the Medical Profession. That was the spirit that existed in Manchester—if one called on the other he was only too ready to respond. (Hear, hear.) Team work to-day included everything; it would be impossible to try and draw a line where it commenced and ended, and if the veterinary profession could play its part in that big field of public health work, no one was more willing to assist than the medical officer of health. They realised more every day the close intimacy between diseases of animals and diseases of man, but did not realise yet how closely inter-related those conditions were. So long, however, as they realised that in that great question there were no petty jealousies but just a great desire to serve, play the game and push things along, then neither of the professions would suffer. Each profession would benefit in the long run, and mankind would benefit by collective service. The President, in his address that afternoon, had referred to the fact that they were students together. There were two other members in that room who were also students with them, and it was very gratifying to know they had all grown up with some little respect, and that they were able to be present that night to support Major Wright in the chair. He knew that Major Wright would fill the chair with the characteristic thoroughness of a man who was educated at the New Veterinary College, Edinburgh. In his early days he (Colonel Brittlebank) had little ambition to fill the chair of the Royal College of Veterinary Surgeons, but he had had the help of the granddaughter of the man who was well known to the profession as "Old Billy," the old Principal of the New Veterinary College, Edinburgh, and if it had not been for her help he would never have achieved the office of President of the Royal College. (Hear, hear.) It was difficult in any circumstances to fill the position, and if it was not that one was helped and encouraged at home, it would be impossible to do it.

A strong, vigorous, and progressive Council of the Royal College of Veterinary Surgeons was a necessity to the welfare of the profession, and he was glad to pay tribute to his fellow members of Council. Differences of opinion might exist in some unimportant directions but, generally speaking, he could say without fear of contradiction that the Council were loyal to their responsibilities and the tasks which they had to face on behalf of the profession. He wanted to say, there and then, that they would jealously and strongly preserve their one portal system of entry. They had been assailed in some directions because of their so-called isolation. But merely because outsiders wished to prescribe what they considered to be good for the profession it did not mean that of necessity their advice was such as should be considered. Those who had the responsibility of considering the fortunes of the profession were perfectly capable of so doing, and those who had to follow them would be quite capable of deciding those important issues without calling in the assistance of other and not uninterested parties. There were many very delicate and important matters at the moment engaging the attention of the Council. The question of research was one which he could indicate as fraught with great possibilities for the profession, provided such research were to be carried on under proper conditions and uncontrolled by other outside interested parties. He could assure those members of the profession who were present that night that they could rely on the integrity and statesmanship of those whom they had elected to govern their destinies. Before he sat down he could not but again express his extreme gratitude for the high honour they had paid him that night by entertaining him as a guest amongst those who had been his friends all his professional life.

Mr. J. HOLROYD, in proposing the toast to the President, said that Major Wright had been a member of the veterinary profession for thirty-four years, and a member of that Division for twenty-one years. Besides being a man who had taken a great interest in the welfare of his profession, he was also interested in the canine species. He was the Vice-President of the Wire-haired Fox Terriers Association of Great Britain and Ireland, and a well-known judge. He had a large practice in Manchester and was thus carrying out a very important branch of the work of the profession. He (the speaker) considered that the general practitioners were by far the most important branch of the profession—that was not only his opinion, but also the opinion of many of the whole-time veterinary officers.

Major WRIGHT, in response, said that the Lancashire Veterinary Medical Association was formed in 1862, and was the oldest Association of its kind in Great Britain. Its ideals were second to none for the welfare of the members and profession as a whole. He was mindful of the good work that had been done by past presidents and members, and was sensible of the honour awarded him by electing him President for 1927. He would do his best to maintain the Association's great traditions. He thanked Mr. Holroyd for the kind words he had uttered, and his audience for the way they had received the toast.

The toast to the National Veterinary Medical Association was proposed by Dr. MCCLURE, Deputy Medical Officer of Health, Manchester. He said that he was pleased to be present as a guest for two reasons: the first was that he had never seen so many veterinary surgeons together at

once (really an impressive sight), and the second that it was all to the good that the members of the veterinary and medical professions should meet, not only in business, but also in social gatherings such as that. The two professions had not always been closely associated; sometimes they had been very close, and sometimes not quite so close, but he might say they were not two professions—merely two branches of the art of medicine. Take the founders of the Veterinary School in London; if it was not founded by medical men it was staffed by them in the early days, but it was found out that they knew nothing at all about diseases of animals, so they were sent about their business. About that time the difference between the two branches was almost complete, and it was only in comparatively recent years that the two branches had again come together and realised that the work of one was dependent upon the work of the other. Every advance in human medicine had its effect on the progress of veterinary science. The work of men like Pasteur, Lister, Koch, had been as invaluable to animal medicine as to human medicine, and without their work it would have been impossible for the veterinary profession to have gained that complete control over certain plagues, such as rinderpest and glanders, as it had done. The veterinary profession must, he was sure, have had a very difficult task to overcome contagious diseases, and tuberculosis, which was transmissible amongst animals and humans, would be overcome before very long. The veterinary surgeon had rather a mixed clientèle and met many conditions; his main difficulty was that he was not able to cross-examine his patients, but he could kill if he could not cure. He understood that the National Veterinary Medical Association was a prototype of the British Medical Association: its aims and objects were the same, chiefly to advance the science of medicine. In this respect he would like to mention the names of W. A. Taylor, Bradley, Hunting, Buxton, and Wooldridge—(hear, hear)—who had spent or were spending their lives and energy in advancing and helping forward the science of veterinary medicine.

Professor WOOLDRIDGE, in response, said he wished to thank his audience for the way they had honoured that toast. It gave him great pleasure to be present that night and to convey to the "Lancashire" the gratitude of the "National" for the way it was carrying out its work in the interests of the profession. He pointed out that the Lancashire Veterinary Medical Association was not the oldest Association of its kind in Great Britain, but it was the oldest in England. It was preceded by the West of Scotland Association, which was founded in 1858, the "Lancashire" being formed in 1862. It was some years since he had attended a meeting of that Division, but he had some recollection of giving a paper some years ago, and although there was an enthusiastic meeting the numbers were small and did not compare with the number present that night. The "National" did try to model itself on the British Medical Association, and its objects were similar. Its Council consisted of members who were sent by the local Divisions. The Council was thus formed of a body of men who brought local colour and feelings. The veterinary profession had made rapid strides of late and was now in close co-operation with the medical profession. Only a few days ago he was present at a discussion at which medical men and veterinary surgeons took part. The veterinary profession was now recognised as the leading body in connection with scientific animal research. Professor Wooldridge said he wished to remind the members of the Annual Congress to be held at Torquay this year, and he appealed for support. He hoped the Lancashire Division would be strongly represented. An excellent programme had been arranged, one that would appeal not only to the members but also to the ladies. He would point out that academic dress had now been adopted by the profession, and he hoped that all veterinary surgeons would equip themselves in readiness for the Annual Congress. He would again express his thanks for the way the toast had been received.

Mr. E. J. BURNDRED, in proposing the toast to "Our Guests," said that a few days ago he was discussing with a friend customs of different countries, and they agreed that the most popular custom was that of letting in the New Year. At every house everybody was welcome to come in and partake of food, etc., and the Lancashire Division extended that hospitality to its guests. They were invited to join in everything that was present in the fullest degree. He had been asked to couple that toast with "The Ladies." A gathering of that kind would not have been complete without the presence of the ladies, and it was hardly necessary for him to say how much their attendance was appreciated. The "Lancashire" had great pleasure in entertaining its guests.

Aldermen Jones, Turnbull, and Hornby expressed their thanks on behalf of the guests for the hospitality which had been extended to them.

Musical items were rendered during the evening.

J. SPRUELL,
*Hon. Secretary.*

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## West of Scotland Division.*

A meeting of the West of Scotland Division N.V.M.A. was held in the Glasgow Veterinary College, 83 Buccleuch Street, Glasgow, on Wednesday, 18th May.

Mr. Donald Campbell, the President of the Division, occupied the chair, and the following were also present:—Dr. Whitehouse, Prof. W. Robb, Prof. McGaughey, Messrs. Jas. Lindsay, Peter Wilson, J. G. Macgregor, Chas. Watson, W. Gardner, J. F. Taylor, D. Brown, P. Meikle, Wm. Ferguson, W. Harley, A. Stark, R. Mitchell, R. Marshall, and R. Smith.

*Visitors.*—Messrs. John Speir, Malcolm, Paton, Kirkwood, McAra, M. A. McBride, John Henderson, and Dr. Whiteford, together with twenty students.

*New Member.*—Mr. Chas. Watson, M.R.C.V.S., Carluke, was elected as a new member.

Dr. Whitehouse reported a case of Ectopia cordis which he proposed purchasing, and it was resolved to grant £5 from the funds of the Division, if necessary, to help to meet the expenses of purchase and keep. Dr. J. Hume Patterson, County Medical Officer, Lanarkshire, read a paper on "Provisions for a Pure Milk Supply."

Prof. W. Robb, F.R.C.V.S., opened the discussion, followed by Messrs. J. G. Macgregor, M.R.C.V.S., Veter-

* Received on June 19th.

inary Officers County of Stirling; J. Speir, farmer, Newton; W. Gardner, M.R.C.V.S., Maybole; J. F. Taylor, M.R.C.V.S., Cathkin; and Mr. Jas. Malcolm, West of Scotland Agricultural College.

[Dr. Patterson's paper is published at the commencement of this issue of the *Record*. The report of the discussion will appear next week.—ED.]

After Dr. Patterson had replied to the many questions and criticisms, a vote of thanks was accorded to the essayist and the Chairman.

GEORGE W. WEIR, *Hon. Secretary.*

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### NOTANDA.

Strychnine solutions are chemically incompatible with alkalies, astringents and liquor arsenicalis.

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One of the most effective repellant sprays to protect cattle against flies is made by adding one pint of oil of tar to one gallon of crude crank case oil. This spray requires daily application.

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*B. abortus* infection occurred in two students in an Eastern university. These and other cases that have been reported indicate the necessity of safeguarding the human from the possibility of infection with this micro-organism. (*Vety. Med.*)

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Thyroxin, the active principle or hormone of the thyroid gland, has been made synthetically by Harrington and Barger in the University College, London. Synthetic production should ensure a uniform product and, if the price is within reason, it will be used extensively. (*Science.*)

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Glauber's Salt (sodium sulphate) was discovered by Johann R. Glauber (1604-1688), chemist, of Carlstadt. Dover's Powder was introduced by Thomas Dover (1660-1742), English physician.

. . . . . .

The word quinine is drived from the Quichua language, the tongue of the Indians of the Andes, in which "quina" means bark, and "quinaquina" the special bark from which quinine is derived.

H. K.

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### SOVIET SALARIES.

"The Soviet Government," says the Riga correspondent of *The Times*, "has decided on an increase in the salaries of teachers, doctors, and veterinary surgeons for the coming budget year.

"The increases fluctuate between 15 and 25 per cent. According to the new tariff, elementary teachers receive the princely salaries fluctuating in different districts between nine and twelve roubles (18s. and 24s.) a week; secondary teachers between 26s. and 35s. Doctors and veterinary surgeons get between 35s. and 45s.; dentists between 18s. and 26s.; officials in provincial administrative organisations between 11s. and 26s. weekly.

"These figures are calculated generously, taking the rouble as equivalent to 2s. A decent suit of men's clothes costs from £15 to £25 sterling.

## NOTES AND NEWS.

**The Editor will be glad to receive items of professional interest for inclusion in these columns.**

### Diary of Events.

Aug. 5th—Meeting of the Royal Counties Division at Institute of Animal Pathology, Cambridge.
Aug. 8th—Meeting of the Editorial Committee, N.V.M.A., at 4-30 p.m.
Aug. 11th—Meeting of the Midland Counties Division at Stamford.
Aug. 22nd—Last day for entry to R.C.V.S. Jubilee Memorial Bursary Examination.
**Sept. 12-17th—N.V.M.A. Congress at Torquay.**
Sept. 22nd, 23rd.—Examination at R.C.V.S. for Jubilee Memorial Bursary.
Oct. 5th—R.C.V.S. Committee Meetings.
Oct. 6th—R.C.V.S. Committee Meetings.
Oct. 7th—R.C.V.S. Council Meetings.

### The Royal Veterinary College.

#### RESIGNATION OF SIR JOHN M'FADYEAN.

The annual general meeting of the Royal Veterinary College, London, was held on Saturday last. In the unavoidable absence of the President, the Duke of Connaught, Mr. E. M. Crookshank, the Senior Vice-President, whose period of service on the Governing Board extends to over forty years, presided. The Governors received the resignation of Sir John M'Fadyean from the post of Principal of the College and Director of the Research Institute in Animal Pathology. Sir John M'Fadyean was elected to a seat on the Governing Board, and Lord Allendale, Major F. T. G. Hobday, and Major-General Sir John Moore were also elected Governors of the College.

The Centenary Prize in Class A was awarded to Mr. J. J. Davies, in Class B to Mr. R. Machin, in Class C to Mr. J. S. Stevenson, and in Class D to Mr. R. Roberts. The Coleman Silver Medal was awarded to Mr. W. J. Cooper.

Towards the sum of £50,000 required for rebuilding and equipping the college, £12,000 had been received.

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### ARMY VETERINARY SERVICE.

#### LONDON GAZETTE—WAR OFFICE—REGULAR FORCES.

July 19th.—Lt.-Col. W. S. Anthony, C.M.G., to be Col. (Aug. 24th, 1925), with Army seniority as Col. June 3rd, 1920. Such seniority not to count for pay and allowances or ret. pay. (Substituted for the notification in the *Gazette* of Sept. 11th, 1925.)

#### TERRITORIAL ARMY.

July 22nd.—Capt. J. H. Mason resigns his commn. (July 23rd).

. . . . . .

His Excellency the Commander-in-Chief has selected, subject to His Majesty's approval, Mr. A. C. Aggarwala,

B.Sc. Hons., M.R.C.V.S., Professor at the Punjab Veterinary College, Lahore, for appointment to a commission in the army in India Reserve of Officers, in the rank of Lieut. He has been posted to category 12-Veterinary.

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### Army Promotion.

The results of the March examination in written subjects at stations in India, with a view to promotion, were announced on July 22nd, when Capts. Mullany, J.; Holland, C., M.C., Bell, J.; Edwards, W. P. S.; Barry, W. E.; Rouse, W. M.; Heane, C. W.; Keane, J. S.; Killelea, M. J.; Sinton, W. L.; Beck, D'A. S.; and O'Carroll, J., officers of the Royal Army Veterinary Corps, were amongst the successful candidates.

### Glanders in Cairo.

"There has been an outbreak of a serious form of glanders in Cairo, and drastic steps are being taken to check it from spreading," says *The Times* of July 19th. "Many army horses have been shot. The municipality of Alexandria is seeking to ensure that all animals arriving from Cairo are put through the mallein test. Alexandria is the Egyptian racing centre during the summer, and the presence of hundreds of valuable racehorses would make any contamination there a very grave matter."

### R.C.V.S. Library.

The following books have recently been added to the Library:—"Animal Mind," Pitt, 1927; "The Investigation of Mind in Animals," Smith, 1927; "Notes on Infectious Diseases of Animals," Isherwood, 1927; "The Physiology of Reproduction in the Cow," Hammond, 1927; "Milk and its Hygienic Relations," Lane-Claypon; and "Sex in Man and Animals," Baker, 1926.

Books and pamphlets may be borrowed from the Library by Members of the College on payment of postage both ways. Apply to the Librarian, 10 Red Lion Square, London, W.C.1.

### Carbon Tetrachloride in the Treatment of Distomiasis in Sheep.

"Carbon tetrachloride was first used as an anthelmintic in animals in 1921 by M. C. Hall, then senior zoologist to the U.S. Bureau of Animal Industry, who, in conjunction with Shillinger, in 1923 showed the drug to be an efficient and fairly safe remedy against certain nematodes in the alimentary canal. In 1922 this drug was used by Jeffreys in America against intestinal flukes in foxes, and in 1925 and 1926 was experimentally used in the British Isles for liver fluke (*Fasciola hepatica*) in sheep, by J. H. Norris in Ireland and R. F. Montgomerie in Wales. Since the publication of this experimental work large scale field trials have been made in this and other countries, and reports of the results are being awaited with interest. The drug has been shown to be very efficacious against the adult flukes in the bile-ducts of the liver, but, like extract of male fern, it has no effect upon the immature flukes in the liver parenchyma (the *F. hepatica* reaches the bile-ducts by direct penetration of the fluke embryo through Glisson's capsule). These immature forms become mature and are laying eggs in the bile-ducts in the fourth week after dosage, and consequently further dosage is necessary to destroy them. A dose of 1 c.cm. of carbon tetrachloride in gelatin capsule without previous starvation is sufficient to clear adult flukes from the bile-ducts of the sheep and, speaking generally, sheep will tolerate as much as 30 or 40 c.cm. of the drug in capsule. It is well to note, however, that in occasional instances flocks have been found which tolerate carbon tetrachloride badly and deaths have resulted. This is a matter which is now under investigation in Great Britain. In the meantime it behoves those who are about to use the drug upon sheep to try a few sheep first and find out how the drug is tolerated by the particular flock before dosing large numbers. Carbon tetrachloride possesses advantages in that sheep can be treated without preliminary starvation and can be dosed even when heavy in lamb or with lambs at foot. If further experiments can explain the reasons why carbon tetrachloride should prove toxic in some flocks and not in others, and if this toxicity can be avoided by some simple means, the drug will probably replace extract of male fern as a remedy for the cure of distomiasis in sheep. The presence of impurities has been held by many workers to account for the variations in toxicity. Its application to human parasites was the subject of considerable discussion in 1924. M. Khalil, working in Egypt, has been attempting to discover whether the toxicity is attributable to sulphur impurities. Harold King has found carbon bisulphide in samples submitted to him for testing by the Medical Research Council, but in experimental animals Khalil found that a mixture of carbon tetrachloride and carbon bisulphide had no ill effects. He is inclined to attribute the toxicity to the presence of sulphur compounds other than $CS_2$ and gives directions for getting rid of impurities in commercial samples. During 1924 he says that 80,000 people were treated at the Government hospitals by this drug without any fatalities."—*The Lancet.*

### Lymphatics of the Heart.

"The results of an investigation into the lymphatic drainage of the heart of the sheep, rabbit, and man, by Dr. L. R. Shore, have been presented to the Anatomical Society of Great Britain and Ireland. Investigations in the living rabbit indicate that both heart and pericardium drain constantly to a gland just outside the pericardium, which lies between the right superior vena cava and ascending aorta and in front of the right branch of the pulmonary artery. Injection of the dead sheep's heart by the method of Jamieson and Dobson shows either a convergence of the main lymphatic trunks to this same district, or the presence of a posterior lymphatic trunk on the back of the left auricle. Two types of lymph drainage are thus recognised in the sheep. Observations of the glands enlarged in rabbits, the subjects of experimentally induced endocarditis, are included. The same gland in the region of the right superior vena cava is found constantly enlarged. Some preliminary observations in the *post-mortem* room on cases of infective endocarditis have disclosed the presence of enlarged fleshy glands, distinct from the pigmented glands of the bronchial system, between the superior vena cava and ascending aorta, in front of the right branch of the pulmonary artery, and on the back of the left auricle, to the right of the left pulmonary veins. The names of "caval" and "auricular" glands of the heart are suggested. The caval gland recalls the arrangement in the rabbit, and the auricular gland the arrangement in one type in the sheep. Further investigation, both in the *post-mortem* room and in the laboratory, is required before these tentative suggestions of the lymphatic drainage of the heart can be regarded as established."—*British Medical Journal.*


### Prevention and Treatment of Swine Erysipelas.

The Veterinary Department of the Wellcome Physiological Research Laboratories has been carrying on researches into this disease for some years. As the outcome of this work it has been decided to issue Vaccine and Serum for prophylaxis and treatment of this disease.

Swine Erysipelas Serum is made by immunising horses with several strains of *B. erysipelatis suis*, and has been shown to be of very high value when tested by the Frankfurt mouse method and the Laurens pigeon method, as practised in Holland.

Swine Erysipelas Vaccine consists of living cultures of several strains of *B. erysipelatis suis* isolated from pigs affected with acute swine erysipelas. The cultures have been grown artificially for several years and, while retaining their antigenic or vaccinating properties, are apparently quite safe to use, for they have failed to infect susceptible pigs when injected in large doses.

Particulars as to the supply and use of these products, which have been the subjects of notices in our advertisement columns, are obtainable from Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, London, E.C.1.

# CORRESPONDENCE.

**Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.**

**All correspondence must bear the name and address of the contributor for publication.**

**The Editor does not hold himself responsible for the opinions of his correspondents.**

## Professor Buxton's Evidence on Veterinary Research in India.

To the Editor of the Veterinary Record.

Sir,—*The Times* reports Professor Buxton as having "strongly urged" the Royal Commission "that there should be a central research station with a director in charge and with a complete staff, and that there should be branch and local organisations."

To many with experience of research in India the soundness of this view must be very much open to question. My own evidence, given in a written statement, was that, whilst everything was to be gained by centralisation on the administrative side of the Service, with a Director-General in charge and not merely an Inspector-General as formerly, the opposite was true for research, and that greater and greater advantages would accrue, up to a certain limit, the more research is decentralised. The problems of the Punjab, Madras, Bombay, etc., cannot be studied effectively from a research centre in the hills of the United Provinces two days' journey from the railway; and, in a country which is practically a continent, it is quite impracticable to "send out a team from the central station" as Professor Buxton suggests.

My view is that well-equipped research stations should be built up at each teaching centre in India and that research at these centres should be co-ordinated with, but not controlled from, the Muktesar laboratory. It would be quite impossible for any one brain to grasp the details of, and guide and control more than a fraction of, all the veterinary research work which is in progress and, in contemplation in Britain, and how much less could any one brain do this for all the great provinces of India.

The tendency is for the Muktesar centre, like so many large Institutes, to become enmeshed in the routine preparation of laboratory products to such an extent that research into new problems becomes well-nigh impossible.

After over twenty years' experience of research in several countries I am more than ever convinced that over-centralisation of research and isolation of it from the teaching centres are detrimental both to research staff and teachers.

Centralisation of control in medical research has been attempted, but the results are not such as to create in our profession a desire to emulate the idea.—Yours faithfully, S. H. Gaiger.

## A Disclaimer.

To the Editor of the Veterinary Record.

Sir,—In the current issue of the American Veterinary periodical *Veterinary Medicine*, there is a reprint of the paper on "Ultra-Violet Radiation," which I read before the Central Division of the N.V.M.A., and inserted in the text is a photograph, taken from one of the pamphlets issued by the P.D.S.A., illustrating a quack doctor dispensing his wares from a caravan.

Although I feel sure that the Editor of *Veterinary Medicine* acted in ignorance of the harm he might unwittingly do to me personally, in the eyes of my brother practitioners, I feel it necessary, on my part, to disclaim all knowledge of the insertion of the picture before I saw it in the June number. I have written to the Editor drawing his attention to the breach of professional etiquette and asking him to be good enough to clear me in the eyes of my professional colleagues. Yours faithfully, H. Stainton.

165 Church Street, Kensington, W.8.
20*th July*, 1927.

## Cystitis in the Cat.

To the Editor of the Veterinary Record.

Sir,—In my experience this disease has always been due to prolonged retention of the urine in consequence of the bony portion of the urethra being blocked with a plug of sabulous material composed of triple phosphates. Urinary calculi are rare in the cat and in such few cases as I have encountered the smaller particles have been almost embedded in the urethral mucous membrane from the neck of the bladder to the meatus, making catheterization difficult if not impossible.

As a rule, when the urine is bloody from cystitis the disease is fatal, although relief may be given by repeated catheterization, when the urine is not likely to flow unless the bladder is compressed. In many cases of retention when there is no bloody urine, by compressing the bladder after the obstruction has been removed, the urine will be ejected with the use of the catheter.

Sometimes on extruding the penis from its sheath, the sabulous plug will be shot out spontaneously and the urine will escape of its own accord. Even when there is no bloody urine the animal not infrequently succumbs within a few days after relief has been given. This is especially the case in very fat animals.

I have never seen rupture of the bladder in cases of retention of the urine either in the dog or cat from spontaneous intra-vesical pressure, but I have seen this occur in cases where the bladder has been suddenly distended with water forced in with a syringe. In such cases there is a "popping" sound and on *post-mortem* examination there is found a wide rent, in a transverse direction, of the fundus. Bursting of the bladder may also occur by the exercise of undue external pressure on the bladder by rough manipulation or by attempting to force a not over sharp trocar and canula through the abdominal walls into the bladder. As soon as cystitis is set up and there is no means of urine escaping the mucous membrane loses its protective power and the urine is absorbed into the system, and sets up more or less uræmic intoxication.

The trouble of these cases is that they have generally been in existence several days or even as long as a week before they are brought to the notice of the practitioner, who finds that through the prolonged overstretching of its walls the bladder has lost its contractile power even after it has been emptied of its contents through a catheter and on compression of the organ. It is much easier to empty the bladder when the animal is under complete anæsthesia, but generally there is very little or no resistance on the part of the animal when catheterization is carried out without the anæsthetic.

The drawback to catheterization is that when there are blood clots in the urine the eyelets or the lumen of the small catheter become blocked, necessitating frequent passage of the stylet or the introduction of a large gauge instrument. To overcome this difficulty I found that ischial urethrotomy was a quicker way to empty the bladder by mere compression, the urethra in the ischial region being very dilatable. But the objection to this operation is the comparatively large wound made, especially in fat animals, the time taken for it to heal and the resentment of the owner to the operation. I have described this operation and also catheterization in the cat as well as in the dog in many papers during the last quarter of a century and especially in the *Veterinary Record*, Vol. XVI, 1903-4, p. 246, and in Hoare's *System of Veterinary Medicine*, Vol. II, p. 785.

In the case of urinary calculi there is a paper read by me at the C.V.S. meeting of 5th April and which appeared in the *Veterinary Record*, April 28th, 1917. These articles are well worth the attention of junior practitioners, as they were based on long experience and therefore mature

judgment, and long before canine practice became so general. Yours faithfully, HENRY GRAY.

Kensington.
*July 23rd*, 1927.

## True Epilepsy v. Globus Hystericus.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—In reply to Captain Mitchell's letter in your issue of July 23rd, I beg to say that the first case I ever saw of "globus hystericus" was about thirty years ago, in a five years' old roan mare of the Hackney type and about 15.3 hands high. This mare came in after a long and fast ride on a warm morning in June and was said to be choking, after resting a few minutes in the stable. I attended at once and saw the full train of symptoms. The mare was greatly excited and sweating, the pupils were dilated, there was delirium and inco-ordination of movement. A swelling about the size of a tennis ball appeared at the left side of the pharynx and travelled slowly down the œsophagus, with each effort at deglutition, in spasmodic jerks, the process taking three or four minutes. The first and last gulps evidently gave the mare the most trouble and she quieted down a little before the symptoms recurred, which they did three times in an hour. The only treatment adopted was the injection hypodermically of ten grains of morphine. I had been reading up "globus hystericus" in an old medical work some time before and was greatly interested in the case. I had, up to that time, read nothing of this affection in veterinary literature. The next case occurred some five years after and I only got to the case in time to see one train of symptoms, which the owner, who was greatly alarmed, assured me was the third attack. The same treatment was adopted and neither case recurred.

In the other two cases all traces of the affection had passed away when I arrived, except excitement and dilatation of the pupil, and only one onset had appeared, as far as the attendants could tell, but the description of the symptoms tallied with those in the other two cases. The last case occurred in the practice of Major E. S. Martin, of Christchurch, Hants., last Easter Saturday, and the mare had come a long journey by rail and arrived an hour before the attack.

All the subjects were mares of an excitable disposition; all occurred in the Spring or early Summer, and all had been in œstrum shortly before. No ill-effects were left in any case and the symptoms did not recur. If those cases were not "globus hystericus," what were they? I have never, in forty years' practice, seen epilepsy in the horse, and, putting two and two together, I believe they were globus hystericus. Perhaps some of your readers can recall a similar case or two, which puzzled them at the time, and give us the benefit of their experience.

I have seen spasms of the glottis and œsophagus in a racehorse—a stallion—after an overdose of *dope*, and in this case, as in two of the others, the patient was supposed to be choking with long hay, an impossible condition, to my mind. Having no sedative in the latter case, I had the horse walked about quietly, away from the stewards of the meeting, and the symptoms passed off in about an hour. I do not know what the *dope* consisted of, neither did the owner, and I think it cured him of doping ever afterwards. He took a long time to admit that the horse had been given anything, but, on being thoroughly frightened, owned up to it. There was no "globe" in this case only rigidity of the muscles of the neck with excitement and dilatation of the pupils.—Yours faithfully, E. C. WINTER, Capt., F.R.C.V.S.

## A Holiday Suggestion.

TO THE EDITOR OF THE VETERINARY RECORD.

Sir,—The holiday season is now with us and probably many, like myself, feel the desire for one, yet the locum, the expense and the anxiety for one's practice stand out and debar us.

In my experience, locums may be divided into two classes: there is the recent graduate, who is in every way desirable, except in that of experience—how many times on my return have I had the explanation given me that "it was impossible to get the calf away as the pelvis was not big enough," or, if you have the elderly type your household inform you that never again do they have one of that sort in the house.

Now I have long had the idea that one way out of the difficulty is by exchanging practices for a week or two, and I think this idea is worth ventilating in your columns.

The change from England to Ireland or Scotland or from town to country, etc., would amount to a holiday. They say "a change of work is as good as a rest." One gets fed up doing the same journeys and seeing the same faces at the end all the year round; the freshness of going over strange roads and adapting one's self to fresh clients would be an agreeable change and, being taken at a time when there was little doing, would leave hours per day in which to amuse one's self and enjoy the change of air and scenery.

In my experience we are a proud profession but a very poor one, and we try to hide the latter by keeping aloof, especially from one another. If my suggestion was adopted it would be possible to move so far apart that we could ignore the consequences of being seen through. Were I to exchange, say, with a man from Donegal, it would not hurt me if he found on arrival that my surgery was like a rabbit warren, nor would it hurt him if I discovered that he had no carpet on the floor.

As my hobby is fishing, after doing the work I should go to the river or lough and his house would only interest me as a place to shelter in. In his case, if the surgery beat him he could write out a prescription and, when he had finished with the case, go and watch a cricket match or play bowls, or visit a hop or fruit farm, or—what would probably charm some of our Irish or Scotch friends—the beautiful gardens to be seen everywhere in the district.

Compared to engaging a locum, the risk to one's practice would be slight; a reference to the register, showing how long a man had been in one place, would indicate experience, mutual references, such as can be given by druggists' travellers, etc., showing that the parties were of, say, average respectability, would be all one wanted to know in order to leave home in confidence.

As the only expense to both would be the railway fare I think this idea worth entertaining.—Yours faithfully W. D. BLANCHARD.

Leominster.

## The United States Bovine Tuberculosis Control Policy.

We have pleasure in reproducing, by permission of both writer and recipient, the following letter from the pen of the Chief of the Bureau of Animal Industry, Washington, D.C., relative to the above:—

United States Department of Agriculture,
Bureau of Animal Industry,
Washington, D. C.
May 3rd, 1927.

R. L. Higgins, M.R.C.V.S.,
137 Finborough Road,
Earl's Court,
London, S.W.10,
England,

My dear Doctor Higgins:

I have your letter dated April 14th advising of your interest in the slaughter method of controlling bovine tuberculosis and requesting information and statistics bearing upon questions before and since the introduction of that policy.

From the very earliest period of tuberculosis control work conducted by the Bureau the slaughter method has been in vogue, except, of course, in the case of very valuable pure-bred animals which might be held under the Bang system.

For a number of years one school of veterinarians in the United States advocated the control of tuberculosis by physical examination on the ground that it was an economic waste to destroy reactors when tuberculosis did not exist in the udder or mammary gland, or when the disease had not reached the stage where it could be detected by physical examination. It always appeared to the Bureau that it would be a difficult if not an impossible task to free any considerable number of herds by physical examination alone, as *post-mortem* examinations had demonstrated that the apparently prime animal frequently was affected with open lesions of tuberculosis, and potently they were as dangerous spreaders of the disease as animals whose udders or mammary glands were affected.

Twenty-five years ago there was very strong sentiment in favor of saving tuberculous cattle either diagnosed by physical examination or the tuberculin test, unless the disease was advanced. In view of the experience of more than a quarter of a century, I cannot reconcile myself to the belief that such a position is tenable. Pursuing that policy, the Bureau has always recommended the elimination of reactors from the herd, regardless of the extent of the disease. We must recognise the fact that the tuberculin reaction does not indicate the extent to which the reactor is involved. A reactor which may be considered as a recently infected animal, with slight lesions, may in the course of a comparatively few weeks become an advanced case and a menace to the herd in which it is located.

For many years, at our veterinary meetings, various speakers urged the necessity for inaugurating a campaign for the suppression of tuberculosis. Some efforts were made along that line, but the campaign was not really inaugurated until 1917. At that time the United States Congress appropriated $75,000·00 for the work, to be carried on in co-operation with the various States. There were a few States that had appropriations, laws and regulations to carry on the work ; so the first step was to enter into co-operative agreement with the States, and they in turn obtained the necessary legislation to have set aside small appropriations to enable them to carry on the work. Very satisfactory progress has been made. The work is in progress in every State, and in some of the States it has progressed to the point when now it is believed the disease can be brought entirely under subjection within a few years.

At the outset the two main projects of the work were the Accredited-Herd Plan and the Area Plan. The Accredited-Herd Plan was confined to individual herds of cattle, in some instances widely scattered ; the Area Plan contemplates the tuberculin testing of every bovine animal in the area agreed upon. This latter plan has virtually supplanted the individual Accredited-Herd Plan ; so that to-day in most of the States area work is being conducted simultaneously in a large number of counties.

There will be forwarded to you under separate cover a summary of the work as of April 1st, 1927. A study of this summary will indicate the progress which is being made in each of the States. There will also be forwarded to you bulletins, copies of posters, copies of Side-Lights on Tuberculosis, and other literature, which I hope you will find of interest and value.

Very truly yours,
J. R. MOHLER,
Chief of Bureau.

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*The Editor acknowledges the receipt of the following* :—

Communications from Major T. Dalling and Mr. D. E. Wilkinson.

Report of Imperial Institute of Veterinary Research, Muktesar, for year ending 31st March, 1926.

Report of the Director-General of Public Health, New South Wales, for the year 1925.

# CLINICAL AND CASE REPORTS.

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"Clinical observation makes a skilful practitioner, but his skill dies with him. By recording his observations he adds to the knowledge of his profession and assists by his facts in building up a solid edifice of pathological science."—WILLIAM HUNTING—OUR FOUNDER—*Veterinary Record*, July, 1888.